Pro Gln Arg Gly Gly Ser Ser Lys Leu Phe Ser Ser Ser Phe Asn 100 105 110

- Gly Gly Arg Arg Asp Glu Val Ala Glu Ala Gln Arg Ala Glu Phe Ser 115 120 125
- Pro Ala Gln Phe Ser Gly Pro Lys Lys Ile Asn Leu Asn His Leu Leu 130 135 140
- Asn Phe Thr Phe Glu Pro Arg Gly Gln Thr Gly His Phe Glu Gly Ser 145 150 155 160
- Gly His Gly Ser Trp Gly Lys Arg Asn Lys Trp Gly His Lys Pro Phe 165 170 175
- Asn Lys Glu Leu Phe Leu Gln Ala Asn Cys Gln Phe Val Val Ser Glu 180 185 190
- Asp Gln Asp Tyr Thr Ala His Phe Ala Asp Pro Asp Thr Leu Val Asn 195 200 . 205
- Trp Asp Phe Val Glu Gln Val Arg Ile Cys Ser His Glu Val Pro Ser 210 215 220
- Cys Pro Ile Cys Leu Tyr Pro Pro Thr Ala Ala Lys Ile Thr Arg Cys 225 230 235 240
- Gly His Ile Phe Cys Trp Ala Cys Ile Leu His Tyr Leu Ser Leu Ser 245 250 255
- Glu Lys Thr Trp Ser Lys Cys Pro Ile Cys Tyr Ser Ser Val His Lys 260 265 270
- Lys Asp Leu Lys Ser Val Val Ala Thr Glu Ser His Gln Tyr Val Val 275 280 285
- Gly Asp Thr Ile Thr Met Gln Leu Met Lys Arg Glu Lys Gly Val Leu 290 295 300
- Val Ala Leu Pro Lys Ser Lys Trp Met Asn Val Asp His Pro Ile His 305 310 315 320
- Leu Gly Asp Glu Gln His Ser Gln Tyr Ser Lys Phe Leu Leu Ala Ser 325 330 335

Lys Glu Gln Val Leu His Arg Val Val Leu Glu Glu Lys Val Ala Leu 340 345 350

- Glu Gln Gln Leu Ala Glu Glu Lys His Thr Pro Glu Ser Cys Phe Ile 355 360 365
- Glu Ala Ala Ile Gln Glu Leu Lys Thr Arg Glu Glu Ala Leu Ser Gly 370 375 380
- Leu Ala Gly Ser Arg Arg Glu Val Thr Gly Val Val Ala Ala Leu Glu 385 390 395 400
- Gln Leu Val Leu Met Ala Pro Leu Ala Lys Glu Ser Val Phe Gln Pro 405 410 415
- Arg Lys Gly Val Leu Glu Tyr Leu Ser Ala Phe Asp Glu Glu Thr Thr 420 425 430
- Glu Val Cys Ser Leu Asp Thr Pro Ser Arg Pro Leu Ala Leu Pro Leu 435 440 445
- Val Glu Glu Glu Ala Val Ser Glu Pro Glu Pro Glu Gly Leu Pro 450 455 460
- Glu Ala Cys Asp Asp Leu Glu Leu Ala Asp Asp Asn Leu Lys Glu Gly
 465 470 475 480
 - Thr Ile Cys Thr Glu Ser Ser Gln Gln Glu Pro Ile Thr Lys Ser Gly
 485 490 495
 - Phe Thr Arg Leu Ser Ser Ser Pro Cys Tyr Tyr Phe Tyr Gln Ala Glu 500 505 510
 - Asp Gly Gln His Met Phe Leu His Pro Val Asn Val Arg Cys Leu Val 515 520 525
 - Arg Glu Tyr Gly Ser Leu Glu Arg Ser Pro Glu Lys Ile Ser Ala Thr 530 535 540
 - Val Val Glu Ile Ala Gly Tyr Ser Met Ser Glu Asp Val Arg Gln Arg 545 550 555 560
 - His Arg Tyr Leu Ser His Leu Pro Leu Thr Cys Glu Phe Ser Ile Cys 565 570 575
 - Glu Leu Ala Leu Gln Pro Pro Val Val Ser Lys Glu Thr Leu Glu Met

580

585

590

Phe Ser Asp Asp Ile Glu Lys Arg Lys Arg Gln Arg Gln Lys Lys Ala
595 600 605

Arg Glu Glu Arg Arg Glu Arg Arg Ile Glu Ile Glu Glu Asn Lys 610 620

Lys Gln Gly Lys Tyr Pro Glu Val His Ile Pro Leu Glu Asn Leu Gln 625 630 635 640

Gln Phe Pro Ala Phe Asn Ser Tyr Thr Cys Ser Ser Asp Ser Ala Leu 645 650 655

Gly Pro Thr Ser Thr Glu Gly His Gly Ala Leu Ser Ile Ser Pro Leu 660 665 670

Ser Arg Ser Pro Gly Ser His Ala Asp Phe Leu Leu Thr Pro Leu Ser 675 680 685

Pro Thr Ala Ser Gln Gly Ser Pro Ser Phe Cys Val Gly Ser Leu Glu 690 695 700

Glu Asp Ser Pro Phe Pro Ser Phe Ala Gln Met Leu Arg Val Gly Lys
705 710 715 720

Ala Lys Ala Asp Val Trp Pro Lys Thr Ala Pro Lys Lys Asp Glu Asn 725 730 735

Ser Leu Val Pro Pro Ala Pro Val Asp Ser Asp Gly Glu Ser Asp Asn 740 745 750

Ser Asp Arg Val Pro Val Pro Ser Phe Gln Asn Ser Phe Ser Gln Ala 755 760 765

Ile Glu Ala Ala Phe Met Lys Leu Asp Thr Pro Ala Thr Ser Asp Pro 770 775 780

Leu Ser Glu Glu Lys Gly Gly Lys Lys Arg Lys Lys Gln Lys Gln Lys 785 790 795 800

Leu Leu Phe Ser Thr Ser Val Val His Thr Lys 805 810

<210> 2585 <211> 482 <212> PRT

<213> Homo sapiens

<400> 2585

Met Ala Glu Ala Ala Thr Pro Gly Thr Thr Ala Thr Thr Ser Gly Ala

1 10 15

Gly Ala Ala Ala Thr Ala Ala Ala Ala Ser Pro Thr Pro Ile Pro 20 25 30

Thr Val Thr Ala Pro Ser Leu Gly Ala Gly Gly Gly Gly Gly Ser 35 40 45

Asp Gly Ser Gly Gly Gly Trp Thr Lys Gln Val Thr Cys Arg Tyr Phe 50 55 60

Met His Gly Val Cys Lys Glu Gly Asp Asn Cys Arg Tyr Ser His Asp 65 70 75 80

Leu Ser Asp Ser Pro Tyr Ser Val Val Cys Lys Tyr Phe Gln Arg Gly 85 90 95

Tyr Cys Ile Tyr Gly Asp Arg Cys Arg Tyr Glu His Ser Lys Pro Leu 100 105 110

Lys Gln Glu Glu Ala Thr Ala Thr Glu Leu Thr Thr Lys Ser Ser Leu 115 120 125

Ala Ala Ser Ser Ser Leu Ser Ser Ile Val Gly Pro Leu Val Glu Met 130 135 140

Asn Thr Gly Glu Ala Glu Ser Arg Asn Ser Asn Phe Ala Thr Val Gly
145 150 155 160

Ala Gly Ser Glu Asp Trp Val Asn Ala Ile Glu Phe Val Pro Gly Gln 165 170 175

Pro Tyr Cys Gly Arg Thr Ala Pro Ser Cys Thr Glu Ala Pro Leu Gln 180 185 190

Gly Ser Val Thr Lys Glu Glu Ser Glu Lys Glu Gln Thr Ala Val Glu 195 200 205

Thr Lys Lys Gln Leu Cys Pro Tyr Ala Ala Val Gly Glu Cys Arg Tyr 210 215 220

Gly Glu Asn Cys Val Tyr Leu His Gly Asp Ser Cys Asp Met Cys Gl	ys Val Tyr Leu His	sp Met Cys Gl ₃
235 236 235	230	240

- Leu Gln Leu Leu His Pro Met Asp Ala Ala Gln Arg Ser Gln His Ile 245 250 255
- Lys Ser Cys Ile Glu Ala His Glu Lys Asp Met Glu Leu Ser Phe Ala 260 265 270
- Val Gln Arg Ser Lys Asp Met Val Cys Gly Ile Cys Met Glu Val Val 275 280 285
- Tyr Glu Lys Ala Asn Pro Ser Glu Arg Arg Phe Gly Ile Leu Ser Asn 290 295 300
- Cys Asn His Thr Tyr Cys Leu Lys Cys Ile Arg Lys Trp Arg Ser Ala 305 310 315 320
- Lys Gln Phe Glu Ser Lys Ile Ile Lys Ser Cys Pro Glu Cys Arg Ile 325 330 335
- Thr Ser Asn Phe Val Ile Pro Ser Glu Tyr Trp Val Glu Glu Lys Glu 340 345 350
- Glu Lys Gln Lys Leu Ile Leu Lys Tyr Lys Glu Ala Met Ser Asn Lys 355 360 365
- Ala Cys Arg Tyr Phe Asp Glu Gly Arg Gly Ser Cys Pro Phe Gly Gly 370 380
- Asn Cys Phe Tyr Lys His Ala Tyr Pro Asp Gly Arg Arg Glu Glu Pro 385 390 395 400
- Gln Arg Gln Lys Val Gly Thr Ser Ser Arg Tyr Arg Ala Gln Arg Arg 405 410 415
- Asn His Phe Trp Glu Leu Ile Glu Glu Arg Glu Asn Ser Asn Pro Phe 420 425 430
- Asp Asn Asp Glu Glu Val Val Thr Phe Glu Leu Gly Glu Met Leu 435 440 445
- Leu Met Leu Leu Ala Ala Gly Gly Asp Asp Glu Leu Thr Asp Ser Glu 450 455 460
- Asp Glu Trp Asp Leu Phe His Asp Glu Leu Glu Asp Phe Tyr Asp Leu

465 470 475 480

Asp Leu

<210> 2586

<211> 146

<212> PRT

<213> Homo sapiens

<400> 2586

Met Pro Ser Lys Gly Pro Leu Gln Ser Val Gln Val Phe Gly Arg Lys 1 5 10 15

Lys Thr Ala Thr Ala Val Ala His Cys Lys Arg Gly Asn Gly Leu Ile 20 25 30

Lys Val Asn Gly Arg Pro Leu Glu Met Ile Glu Pro Arg Thr Leu Gln 35 40 45

Tyr Lys Leu Glu Pro Val Leu Leu Gly Lys Glu Arg Phe Ala 50 55 60

Gly Val Asp Ile Arg Val Arg Val Lys Gly Gly His Val Ala Gln 65 70 75 80

Ile Tyr Ala Ile Arg Gln Ser Ile Ser Lys Ala Leu Val Ala Tyr Tyr 85 90 95

Gln Lys Tyr Val Asp Glu Ala Ser Lys Lys Glu Ile Lys Asp Ile Leu 100 105 110

Ile Gln Tyr Asp Arg Thr Leu Leu Val Ala Asp Pro Arg Arg Cys Glu 115 120 125

Ser Lys Lys Phe Gly Gly Pro Gly Ala Arg Ala Arg Tyr Gln Lys Ser 130 135 140

Tyr Arg 145

<210> 2587

<211> 1674

<212> PRT

<213> Homo sapiens

<400> 2587

Met Glu Asp Ala Ser Glu Ser Ser Arg Gly Val Ala Pro Leu Ile Asn 1 5 10 15

- Asn Val Val Leu Pro Gly Ser Pro Leu Ser Leu Pro Val Ser Val Thr 20 25 30
- Gly Cys Lys Ser His Arg Val Ala Asn Lys Lys Val Glu Ala Arg Ser 35 40 45
- Glu Lys Leu Leu Pro Thr Ala Leu Pro Pro Ser Glu Pro Lys Val Asp 50 55 60
- Gln Lys Leu Pro Arg Ser Ser Glu Arg Arg Gly Ser Gly Gly Gly Thr 65 70 75 80
- Gln Phe Pro Ala Arg Ser Arg Ala Val Ala Ala Gly Glu Ala Ala Ala 85 90 95
- Arg Gly Ala Ala Gly Pro Glu Arg Gly Ser Pro Leu Gly Arg Arg Val
- Ser Pro Arg Cys Leu Cys Ser Gly Glu Gly Gly Gln Val Ala Val Gly 115 120 125
- Val Ile Ala Gly Lys Arg Gly Arg Arg Gly Arg Asp Gly Ser Arg Arg 130 135 140
- Ala Pro Gly Gly Arg Glu Met Pro Leu Leu His Arg Lys Pro Phe Val 145 150 155 160
- Arg Gln Lys Pro Pro Ala Asp Leu Arg Pro Asp Glu Glu Val Phe Tyr 165 170 175
- Cys Lys Val Thr Asn Glu Ile Phe Arg His Tyr Asp Asp Phe Phe Glu 180 185 190
- Arg Thr Ile Leu Cys Asn Ser Leu Val Trp Ser Cys Ala Val Thr Gly
 195 200 205
- Arg Pro Gly Leu Thr Tyr Gln Glu Ala Leu Glu Ser Glu Lys Lys Ala 210 215 220
- Arg Gln Asn Leu Gln Ser Phe Pro Glu Pro Leu Ile Ile Pro Val Leu 225 230 235 240
- Tyr Leu Thr Ser Leu Thr His Arg Ser Arg Leu His Glu Ile Cys Asp

245 250 255

Asp Ile Phe Ala Tyr Val Lys Asp Arg Tyr Phe Val Glu Glu Thr Val 260 265 270

Glu Val Ile Arg Asn Asn Gly Ala Arg Leu Gln Cys Thr Ile Leu Glu 275 280 285

Val Leu Pro Pro Ser His Gln Asn Gly Phe Ala Asn Gly His Val Asn 290 295 300

Ser Val Asp Gly Glu Thr Ile Ile Ile Ser Asp Ser Asp Ser Glu 305 310 315 320

Thr Gln Ser Cys Ser Phe Gln Asn Gly Lys Lys Lys Asp Ala Ile Asp 325 330 335

Pro Leu Leu Phe Lys Tyr Lys Val Gln Pro Thr Lys Lys Glu Leu His 340 345 350

Glu Ser Ala Ile Val Lys Ala Thr Gln Ile Ser Arg Arg Lys His Leu 355 360 365

Phe Ser Arg Asp Lys Leu Lys Leu Phe Leu Lys Gln His Cys Glu Pro 370 380

Gln Glu Gly Val Ile Lys Ile Lys Ala Ser Ser Leu Ser Thr Tyr Lys 385 390 395 400

Ile Ala Glu Gln Asp Phe Ser Tyr Phe Phe Pro Asp Asp Pro Pro Thr 405 410 415

Phe Ile Phe Ser Pro Ala Asn Arg Arg Gly Arg Pro Pro Lys Arg
420 425 430

Ile His Ile Ser Gln Glu Asp Asn Val Ala Asn Lys Gln Thr Leu Ala 435 440 445

Ser Tyr Arg Ser Lys Ala Thr Lys Glu Arg Asp Lys Leu Leu Lys Gln
450 455 460

Glu Glu Met Lys Ser Leu Ala Phe Glu Lys Ala Lys Leu Lys Arg Glu 465 470 475 480

Lys Ala Asp Ala Leu Glu Ala Lys Lys Glu Lys Glu Asp Lys Glu 485 490 495

Lys Lys Arg Glu Glu Leu Lys Lys Ile Val Glu Glu Glu Arg Leu Lys
500 505 510

- Lys Lys Glu Glu Lys Glu Arg Leu Lys Val Glu Arg Glu Lys Glu Arg
 515 520 525
- Glu Lys Leu Arg Glu Glu Lys Arg Lys Tyr Val Glu Tyr Leu Lys Gln 530 535 540
- Trp Ser Lys Pro Arg Glu Asp Met Glu Cys Asp Asp Leu Lys Glu Leu 545 550 555 560
- Pro Glu Pro Thr Pro Val Lys Thr Arg Leu Pro Pro Glu Ile Phe Gly 565 570 575
- Asp Ala Leu Met Val Leu Glu Phe Leu Asn Ala Phe Gly Glu Leu Phe 580 585 590
- Asp Leu Gln Asp Glu Phe Pro Asp Gly Val Thr Leu Glu Val Leu Glu 595 600 605
- Glu Ala Leu Val Gly Asn Asp Ser Glu Gly Pro Leu Cys Glu Leu Leu 610 615 620
- Phe Phe Phe Leu Thr Ala Ile Phe Gln Ala Ile Ala Glu Glu Glu 625 635 640
- Glu Val Ala Lys Glu Gln Leu Thr Asp Ala Asp Thr Lys Gly Cys Ser 645 650 655
- Leu Lys Ser Leu Asp Leu Asp Ser Cys Thr Leu Ser Glu Ile Leu Arg
 660 665 670
- Leu His Ile Leu Ala Ser Gly Ala Asp Val Thr Ser Ala Asn Ala Lys 675 680 685
- Tyr Arg Tyr Gln Lys Arg Gly Gly Phe Asp Ala Thr Asp Asp Ala Cys 690 695 700
- Met Glu Leu Arg Leu Ser Asn Pro Ser Leu Val Lys Lys Leu Ser Ser 705 710 715 720
- Thr Ser Val Tyr Asp Leu Thr Pro Gly Glu Lys Met Lys Ile Leu His 725 730 735

Ala Leu Cys Gly Lys Leu Leu Thr Leu Val Ser Thr Arg Asp Phe Ile
740 745 750

- Glu Asp Tyr Val Asp Ile Leu Arg Gln Ala Lys Gln Glu Phe Arg Glu 755 760 765
- Leu Lys Ala Glu Gln His Arg Lys Glu Arg Glu Glu Ala Ala Arg 770 775 780
- Ile Arg Lys Arg Lys Glu Glu Lys Leu Lys Glu Gln Glu Gln Lys Met
 785 790 795 800
- Lys Glu Lys Gln Glu Lys Leu Lys Glu Asp Glu Gln Arg Asn Ser Thr 805 810 815
- Ala Asp Ile Ser Ile Gly Glu Glu Glu Arg Glu Asp Phe Asp Thr Ser 820 825 830
- Ile Glu Ser Lys Asp Thr Glu Gln Lys Glu Leu Asp Gln Asp Met Phe 835 840 845
- Thr Glu Asp Glu Asp Asp Pro Gly Ser His Lys Arg Gly Arg Arg Gly 850 855 860
- Lys Arg Gly Gln Asn Gly Phe Lys Glu Phe Thr Arg Gln Glu Gln Ile 865 870 875 880
- Asn Cys Val Thr Arg Glu Leu Leu Thr Ala Asp Glu Glu Glu Ala Leu 885 890 895
- Lys Gln Glu His Gln Arg Lys Glu Lys Glu Leu Leu Glu Lys Ile Gln 900 905 910
- Ser Ala Ile Ala Cys Thr Asn Ile Phe Pro Leu Gly Arg Asp Arg Met 915 920 925
- Tyr Arg Arg Tyr Trp Ile Phe Pro Ser Ile Pro Gly Leu Phe Ile Glu 930 935 940
- Glu Asp Tyr Ser Gly Leu Thr Glu Asp Met Leu Leu Pro Arg Pro Ser 945 950 955 960
- Ser Phe Gln Asn Asn Val Gln Ser Gln Asp Pro Gln Val Ser Thr Lys 965 970 975

Thr Gly Glu Pro Leu Met Ser Glu Ser Thr Ser Asn Ile Asp Gln Gly
980 985 990

- Pro Arg Asp His Ser Val Gln Leu Pro Lys Pro Val His Lys Pro Asn 995 1000 1005
- Arg Trp Cys Phe Tyr Ser Ser Cys Glu Gln Leu Asp Gln Leu Ile 1010 1015 1020
- Glu Ala Leu Asn Ser Arg Gly His Arg Glu Ser Ala Leu Lys Glu 1025 1030 1035
- Thr Leu Leu Gln Glu Lys Ser Arg Ile Cys Ala Gln Leu Ala Arg 1040 1045 1050
- Phe Ser Glu Glu Lys Phe His Phe Ser Asp Lys Pro Gln Pro Asp 1055 1060 1065
- Ser Lys Pro Thr Tyr Ser Arg Gly Arg Ser Ser Asn Ala Tyr Asp 1070 1075 1080
- Pro Ser Gln Met Cys Ala Glu Lys Gln Leu Glu Leu Arg Leu Arg 1085 1090 1095
- Asp Phe Leu Leu Asp Ile Glu Asp Arg Ile Tyr Gln Gly Thr Leu 1100 1105 1110
- Gly Ala Ile Lys Val Thr Asp Arg His Ile. Trp Arg Ser Ala Leu 1115 1120 1125
- Glu Ser Gly Arg Tyr Glu Leu Leu Ser Glu Glu Asn Lys Glu Asn 1130 1135 1140
- Gly Ile Ile Lys Thr Val Asn Glu Asp Val Glu Glu Met Glu Ile 1145 1150 1155
- Asp Glu Gln Thr Lys Val Ile Val Lys Asp Arg Leu Leu Gly Ile 1160 1165 1170
- Lys Thr Glu Thr Pro Ser Thr Val Ser Thr Asn Ala Ser Thr Pro 1175 1180 1185
- Gln Ser Val Ser Ser Val Val His Tyr Leu Ala Met Ala Leu Phe 1190 1195 1200
- Gln Ile Glu Gln Gly Ile Glu Arg Arg Phe Leu Lys Ala Pro Leu

1205 1210 1215

Asp Ala Ser Asp Ser Gly Arg Ser Tyr Lys Thr Val Leu Asp Arg 1220 1230

Trp Arg Glu Ser Leu Leu Ser Ser Ala Ser Leu Ser Gln Val Phe 1235

Leu His Leu Ser Thr Leu Asp Arg Ser Val Ile Trp Ser Lys Ser 1250 1255 1260

Ile Leu Asn Ala Arg Cys Lys Ile Cys Arg Lys Lys Gly Asp Ala 1265 1270 1275

Glu Asn Met Val Leu Cys Asp Gly Cys Asp Arg Gly His His Thr 1280 1285 1290

Tyr Cys Val Arg Pro Lys Leu Lys Thr Val Pro Glu Gly Asp Trp 1295 1300 1305

Phe Cys Pro Glu Cys Arg Pro Lys Gln Arg Cys Arg Arg Leu Ser 1310 1315 1320

Phe Arg Gln Arg Pro Ser Leu Glu Ser Asp Glu Asp Val Glu Asp 1325 1330 1335

Ser Met Gly Glu Asp Asp Glu Val Asp Gly Asp Glu Glu Glu 1340 1345 1350

Gly Gln Ser Glu Glu Glu Glu Tyr Glu Val Glu Gln Asp Glu Asp 1355 1360 1365

Asp Ser Gln Glu Glu Glu Glu Val Ser Leu Pro Lys Arg Gly Arg 1370 1375 1380

Pro Gln Val Arg Leu Pro Val Lys Thr Arg Gly Lys Leu Ser Ser 1385 1390 1395

Ser Phe Ser Ser Arg Gly Gln Gln Gln Glu Pro Gly Arg Tyr Pro 1400 1405 1410

Ser Arg Ser Gln Gln Ser Thr Pro Lys Thr Thr Val Ser Ser Lys 1415 1420 1425

Thr Gly Arg Ser Leu Arg Lys Ile Asn Ser Ala Pro Pro Thr Glu 1430 1435 1440

Thr Lys	s Se 45	er Le	u Ar	g Il	e Ala 145	Sei 0	r Arg	g Sei	Thr	Arg 145		s Se	r His
Gly Pro	D Le	u Gl	n Ala	a As _l	p Val 146	Phe 5	≥ Va]	l Glu	ı Leu	Leu 1470	Ser	Pro	Arg
Arg Lys	s Ar 75	g Ar	g Gly	y Arg	J Lys 1480	Sei 0	Ala	. Asn	ı Asn	Thr 1485		Glu	ı Asn
Ser Pro 149	As	n Pho	e Pro) Ası	1 Phe	Arg	Val	Ile	Ala	Thr 1500		Ser	Ser
Glu Gln 150	. Se:	r Arg	g Ser	· Val	Asn 1510	Ile	Ala	Ser	Lys	Leu 1515		Leu	Gln
Glu Ser 152	Gli O	ı Seı	Lys	Arg	1525	Cys	Arg	Lys	Arg	Gln 1530		Pro	Glu
Pro Ser 153	Pro 5	Val	. Thr	Leu	Gly 1540	Arg	Arg	Ser	Ser	Gly 1545		Gln	Gly
Gly Val 1550	His O	: Glu	Leu	Ser	Ala 1555	Phe	Glu	Gln	Leu	Val 1560	Val	Glu	Leu
Val Arg 1569	His 5	Asp	Asp	Ser	Trp 1570	Pro	Phe	Leu	Lys	Leu 1575	Val	Ser	Lys
Ile Gln 1580	Val	Pro	Asp	Tyr	Tyr 1585	Asp	Ile	Ile	Lys	Lys 1590	Pro	Ile	Ala
Leu Asn 1595		Ile	Arg	Glu	Lys 1600	Val	Asn	Lys		Glu 1605	Tyr	Lys	Leu
Ala Ser 1610	Glu	Phe	Ile	Asp	Asp 1615	Ile	Glu	Leu	Met	Phe 1620	Ser	Asn	Суз
Phe Glu 1625	Tyr	Asn	Pro	Arg	Asn 1630	Thr	Ser (Glu .	Ala i	Lys 1635	Ala	Gly	Thr
Arg Leu 1640	Gln	Ala	Phe	Phe	His 1645	Ile	Gln /	Ala (Gln 1	Lys 1650	Leu (Gly	Leu
His Val 1655	Thr	Pro	Ser	Asn	Val 1660	Asp (Gln V	Val S		Thr :	Pro 1	Pro i	Ala

Ala Lys Lys Ser Arg Ile 1670

<210> 2588

<211> 103

<212> PRT

<213> Homo sapiens

<400> 2588

Met Ala Gln Phe Val Arg Asn Leu Val Glu Lys Thr Pro Ala Leu Val

Asn Ala Ala Val Thr Tyr Ser Lys Pro Arg Leu Ala Thr Phe Trp Tyr 25

Tyr Ala Lys Val Glu Leu Val Pro Pro Thr Pro Ala Glu Ile Pro Arg 40 35

Ala Ile Gln Ser Leu Lys Lys Ile Ala Asn Ser Ala Gln Thr Gly Ser 55

Phe Lys Gln Leu Thr Val Lys Glu Ala Val Leu Asn Gly Leu Val Ala 70

Thr Glu Val Leu Met Trp Phe Tyr Val Gly Glu Ile Ile Gly Lys Arg 85 90

Gly Ile Ile Gly Tyr Asp Val 100

<210> 2589 <211> 156 <212> PRT <213> Homo sapiens

<400> 2589

Met Ser Gly Gly Leu Leu Lys Ala Leu Arg Ser Asp Ser Tyr Val Glu

Leu Ser Gln Tyr Arg Asp Gln His Phe Arg Gly Asp Asn Glu Gln

Glu Lys Leu Lys Lys Ser Cys Thr Leu Tyr Val Gly Asn Leu Ser 40

Phe Tyr Thr Thr Glu Glu Gln Ile Tyr Glu Leu Phe Ser Lys Ser Gly 50 55

Asp Ile Lys Lys Ile Ile Met Gly Leu Asp Lys Met Lys Lys Thr Ala 75

Cys Gly Phe Cys Phe Val Glu Tyr Tyr Ser Arg Ala Asp Ala Glu Asn 90

Ala Met Arg Tyr Ile Asn Gly Thr Arg Leu Asp Asp Arg Ile Ile Arg 100 105

Thr Asp Trp Asp Ala Gly Phe Lys Glu Gly Arg Gln Tyr Gly Arg Gly 115 120

Arg Ser Gly Gly Gln Val Arg Asp Glu Tyr Arg Gln Asp Tyr Asp Ala 130 135

Gly Arg Gly Gly Tyr Gly Lys Leu Ala Gln Asn Gln 150

<210> 2590 <211> 436 <212> PRT <213> Homo sapiens

<400> 2590

Met Asp Ser Val Ala Phe Glu Asp Val Ala Val Asn Phe Thr Gln Glu

Glu Trp Ala Leu Leu Ser Pro Ser Gln Lys Asn Leu Tyr Arg Asp Val 25

Thr Leu Glu Thr Phe Arg Asn Leu Ala Ser Val Gly Ile Gln Trp Lys

Asp Glm Asp Ile Glu Asn Leu Tyr Gln Asn Leu Gly Ile Lys Leu Arg

Ser Leu Val Glu Arg Leu Cys Gly Arg Lys Glu Gly Asn Glu His Arg

Glu Thr Phe Ser Gln Ile Pro Asp Cys His Leu Asn Lys Lys Ser Gln

Thr Gly Val Lys Pro Cys Lys Cys Ser Val Cys Gly Lys Val Phe Leu 105

Arg His Ser Phe Leu Asp Arg His Met Arg Ala His Ala Gly His Lys
115 120 125

- Arg Ser Glu Cys Gly Gly Glu Trp Arg Glu Thr Pro Arg Lys Gln Lys
 130 140
- Gln His Gly Lys Ala Ser Ile Ser Pro Ser Ser Gly Ala Arg Arg Thr 145 150 155 160
- Val Thr Pro Thr Arg Lys Arg Pro Tyr Glu Cys Lys Val Cys Gly Lys
 165 170 175
- Ala Phe Asn Ser Pro Asn Leu Phe Gln Ile His Gln Arg Thr His Thr 180 185 190
- Gly Lys Arg Ser Tyr Lys Cys Arg Glu Ile Val Arg Ala Phe Thr Val 195 200 205
- Ser Ser Phe Phe Arg Lys His Gly Lys Met His Thr Gly Glu Lys Arg 210 215 220
- Tyr Glu Cys Lys Tyr Cys Gly Lys Pro Ile Asp Tyr Pro Ser Leu Phe 225 230 235 240
- Gln Ile His Val Arg Thr His Thr Gly Glu Lys Pro Tyr Lys Cys Lys 245 250 255
- Gln Cys Gly Lys Ala Phe Ile Ser Ala Gly Tyr Leu Arg Thr His Glu 260 265 270
- Ile Arg Ser His Ala Leu Glu Lys Ser His Gln Cys Gln Glu Cys Gly 275 280 285
- Lys Lys Leu Ser Cys Ser Ser Ser Leu His Arg His Glu Arg Thr His 290 295 300
- Ser Gly Gly Lys Leu Tyr Glu Cys Gln Lys Cys Ala Lys Val Phe Arg 305 310 315 320
- Cys Pro Thr Ser Leu Gln Ala His Glu Arg Ala His Thr Gly Glu Arg
- Pro Tyr Glu Cys Asn Lys Cys Gly Lys Thr Phe Asn Tyr Pro Ser Cys 340 345 350
- Phe Arg Arg His Lys Lys Thr His Ser Gly Glu Lys Pro Tyr Glu Cys

355

360

365

Thr Arg Cys Gly Lys Ala Phe Gly Trp Cys Ser Ser Leu Arg Arg His 375

Glu Met Thr His Thr Gly Glu Lys Pro Phe Asp Cys Lys Gln Cys Gly 390 400

Lys Val Phe Thr Phe Ser Asn Tyr Leu Arg Leu His Glu Arg Thr His 405 410

Leu Ala Gly Arg Ser Gln Cys Phe Gly Arg Arg Gln Gly Asp His Leu 420

Ser Pro Gly Val 435

<210> 2591

<211> 92

<212> PRT

<213> Homo \sapiens

<400> 2591

Met Gln Val Ser Thr Ala Ala Leu Ala Val Leu Leu Cys Thr Met Ala 10

Leu Cys Asn Gln Phe Ser Ala Ser Leu Ala Ala Asp Thr Pro Thr Ala 30

Cys Cys Phe Ser Tyr Thr Ser Arg Gln Ile Pro Gln Asn Phe Ile Ala 40

Asp Tyr Phe Glu Thr Ser Ser Gln Cys Ser Lys Pro Gly Val Ile Phe 55

Leu Thr Lys Arg Ser Arg Gln Val Cys Ala Asp Pro Ser Glu Glu Trp

Val Gln Lys Tyr Val Ser Asp Leu Glu Leu Ser Ala 85

<210> 2592

<211> 271 <212> PRT <213> Homo sapiens

<400> 2592

Met Glu Ala Leu Pro Leu Leu Ala Ala Thr Thr Pro Asp His Gly Arg

1 10 15

- His Arg Arg Leu Leu Leu Leu Pro Leu Leu Leu Phe Leu Leu Pro Ala 20 25 30
- Gly Ala Val Gln Gly Trp Glu Thr Glu Glu Arg Pro Arg Thr Arg Glu 35 40 45
- Glu Glu Cys His Phe Tyr Ala Gly Gly Gln Val Tyr Pro Gly Glu Ala 50 55 60
- Ser Arg Val Ser Val Ala Asp His Ser Leu His Leu Ser Lys Ala Lys 65 70 75 80
- Ile Ser Lys Pro Ala Pro Tyr Trp Glu Gly Thr Ala Val Ile Asp Gly 85 90 95
- Glu Phe Lys Glu Leu Lys Leu Thr Asp Tyr Arg Gly Lys Tyr Leu Val 100 105 110
- Phe Phe Phe Tyr Pro Leu Asp Phe Thr Phe Val Cys Pro Thr Glu Ile 115 120 125
- Ile Ala Phe Gly Asp Arg Leu Glu Glu Phe Arg Ser Ile Asn Thr Glu 130 135 140
- Val Val Ala Cys Ser Val Asp Ser Gln Phe Thr His Leu Ala Trp Ile 145 150 155 160
- Asn Thr Pro Arg Gln Gly Gly Leu Gly Pro Ile Arg Ile Pro Leu 165 170 175
- Leu Ser Asp Leu Thr His Gln Ile Ser Lys Asp Tyr Gly Val Tyr Leu 180 185 190
- Glu Asp Ser Gly His Thr Leu Arg Gly Leu Phe Ile Ile Asp Asp Lys 195 200 205
- Gly Ile Leu Arg Gln Ile Thr Leu Asn Asp Leu Pro Val Gly Arg Ser 210 215 220
- Val Asp Glu Thr Leu Arg Leu Val Gln Ala Phe Gln Tyr Thr Asp Lys 225 230 235 240
- His Gly Glu Val Cys Pro Ala Gly Trp Lys Pro Gly Ser Glu Thr Ile

> 245 250 255

Ile Pro Asp Pro Ala Gly Lys Leu Lys Tyr Phe Asp Lys Leu Asn 265

<210> 2593

<211> 659 <212> PRT

<213> Homo sapiens

<400> 2593

Met Ala Ala Val Ile Leu Glu Ser Ile Phe Leu Lys Arg Ser Gln Gln 5

Lys Lys Lys Thr Ser Pro Leu Asn Phe Lys Lys Arg Leu Phe Leu Leu

Thr Val His Lys Leu Ser Tyr Tyr Glu Tyr Asp Phe Glu Arg Gly Arg 40

Arg Gly Ser Lys Lys Gly Ser Ile Asp Val Glu Lys Ile Thr Cys Val 50

Glu Thr Val Val Pro Glu Lys Asn Pro Pro Pro Glu Arg Gln Ile Pro

Arg Arg Gly Glu Glu Ser Ser Glu Met Glu Gln Ile Ser Ile Ile Glu

Arg Phe Pro Tyr Pro Phe Gln Val Val Tyr Asp Glu Gly Pro Leu Tyr 105

Val Phe Ser Pro Thr Glu Glu Leu Arg Lys Arg Trp Ile His Gln Leu 120

Lys Asn Val Ile Arg Tyr Asn Ser Asp Leu Val Gln Lys Tyr His Pro 135

Cys Phe Trp Ile Asp Gly Gln Tyr Leu Cys Cys Ser Gln Thr Ala Lys 150 155

Asn Ala Met Gly Cys Gln Ile Leu Glu Asn Arg Asn Gly Ser Leu Lys 170

Pro Gly Ser Ser His Arg Lys Thr Lys Lys Pro Leu Pro Pro Thr Pro 180 185

Glu Glu Asp Gln Ile Leu Lys Lys Pro Leu Pro Pro Glu Pro Ala Ala 195 200 205

- Ala Pro Val Ser Thr Ser Glu Leu Lys Lys Val Val Ala Leu Tyr Asp 210 215 220
- Tyr Met Pro Met Asn Ala Asn Asp Leu Gln Leu Arg Lys Gly Asp Glu 225 230 235 240
- Tyr Phe Ile Leu Glu Glu Ser Asn Leu Pro Trp Trp Arg Ala Arg Asp 245 250 255
- Lys Asn Gly Gln Glu Gly Tyr Ile Pro Ser Asn Tyr Val Thr Glu Ala 260 265 270
- Glu Asp Ser Ile Glu Met Tyr Glu Trp Tyr Ser Lys His Met Thr Arg 275 280 285
- Ser Gln Ala Glu Gln Leu Leu Lys Gln Glu Gly Lys Glu Gly Gly Phe 290 295 300
- Ile Val Arg Asp Ser Ser Lys Ala Gly Lys Tyr Thr Val Ser Val Phe 305 310 315 320
- Ala Lys Ser Thr Gly Asp Pro Gln Gly Val Ile Arg His Tyr Val Val 325 330 335
- Cys Ser Thr Pro Gln Ser Gln Tyr Tyr Leu Ala Glu Lys His Leu Phe 340 345 350
- Ser Thr Ile Pro Glu Leu Ile Asn Tyr His Gln His Asn Ser Ala Gly 355 360 365
- Leu Ile Ser Arg Leu Lys Tyr Pro Val Ser Gln Gln Asn Lys Asn Ala 370 375 380
- Pro Ser Thr Ala Gly Leu Gly Tyr Gly Ser Trp Glu Ile Asp Pro Lys 385 390 395 400
- Asp Leu Thr Phe Leu Lys Glu Leu Gly Thr Gly Gln Phe Gly Val Val 405
- Lys Tyr Gly Lys Trp Arg Gly Gln Tyr Asp Val Ala Ile Lys Met Ile 420 425 430

Lys Glu Gly Ser Met Ser Glu Asp Glu Phe Ile Glu Glu Ala Lys Val 435 440 445

Met Met Asn Leu Ser His Glu Lys Leu Val Gln Leu Tyr Gly Val Cys 450 455 460

Thr Lys Gln Arg Pro Ile Phe Ile Ile Thr Glu Tyr Met Ala Asn Gly
465 470 475 480

Cys Leu Leu Asn Tyr Leu Arg Glu Met Arg His Arg Phe Gln Thr Gln
485 490 495

Gln Leu Leu Glu Met Cys Lys Asp Val Cys Glu Ala Met Glu Tyr Leu
500 505 510

Glu Ser Lys Gln Phe Leu His Arg Asp Leu Ala Ala Arg Asn Cys Leu 515 520 525

Val Asn Asp Gln Gly Val Val Lys Val Ser Asp Phe Gly Leu Ser Arg 530 535 540

Tyr Val Leu Asp Asp Glu Tyr Thr Ser Ser Val Gly Ser Lys Phe Pro 545 550 555 560

Val Arg Trp Ser Pro Pro Glu Val Leu Met Tyr Ser Lys Phe Ser Ser 565 570 575

Lys Ser Asp Ile Trp Ala Phe Gly Val Leu Met Trp Glu Ile Tyr Ser 580 585 590

Leu Gly Lys Met Pro Tyr Glu Arg Phe Thr Asn Ser Glu Thr Ala Glu
595 600 605

His Ile Ala Gln Gly Leu Arg Leu Tyr Arg Pro His Leu Ala Ser Glu 610 620

Lys Val Tyr Thr Ile Met Tyr Ser Cys Trp His Glu Lys Ala Asp Glu 625 630 635 640

Arg Pro Thr Phe Lys Ile Leu Leu Ser Asn Ile Leu Asp Val Met Asp 645 650 655

Glu Glu Ser

<210> 2594

- <211> 417 <212> PRT
- <213> Homo sapiens
- <400> 2594
- Met Ser Leu Ser Asn Lys Leu Thr Leu Asp Lys Leu Asp Val Lys Gly 10
- Lys Arg Val Val Met Arg Val Asp Phe Asn Val Pro Met Lys Asn Asn 25
- Gln Ile Thr Asn Asn Gln Arg Ile Lys Ala Ala Val Pro Ser Ile Lys 40
- Phe Cys Leu Asp Asn Gly Ala Lys Ser Val Val Leu Met Ser His Leu 50
- Gly Arg Pro Asp Gly Val Pro Met Pro Asp Lys Tyr Ser Leu Glu Pro
- Val Ala Val Glu Leu Lys Ser Leu Leu Gly Lys Asp Val Leu Phe Leu
- Lys Asp Cys Val Gly Pro Glu Val Glu Lys Ala Cys Ala Asn Pro Ala
- Ala Gly Ser Val Ile Leu Leu Glu Asn Leu Arg Phe His Val Glu Glu
- Glu Gly Lys Gly Lys Asp Ala Ser Gly Asn Lys Val Lys Ala Glu Pro
- Ala Lys Ile Glu Ala Phe Arg Ala Ser Leu Ser Lys Leu Gly Asp Val 160
- Tyr Val Asn Asp Ala Phe Gly Thr Ala His Arg Ala His Ser Ser Met 170
- Val Gly Val Asn Leu Pro Gln Lys Ala Gly Gly Phe Leu Met Lys Lys 185 190
- Glu Leu Asn Tyr Phe Ala Lys Ala Leu Glu Ser Pro Glu Arg Pro Phe 200 205
- Leu Ala Ile Leu Gly Gly Ala Lys Val Ala Asp Lys Ile Gln Leu Ile 210 215 220

Asn Asn Met Leu Asp Lys Val Asn Glu Met Ile Ile Gly Gly Met 225 230 235 240

Ala Phe Thr Phe Leu Lys Val Leu Asn Asn Met Glu Ile Gly Thr Ser 245 250 255

Leu Phe Asp Glu Glu Gly Ala Lys Ile Val Lys Asp Leu Met Ser Lys 260 265 270

Ala Glu Lys Asn Gly Val Lys Ile Thr Leu Pro Val Asp Phe Val Thr 275 280 285

Ala Asp Lys Phe Asp Glu Asn Ala Lys Thr Gly Gln Ala Thr Val Ala 290 295 300

Ser Gly Ile Pro Ala Gly Trp Met Gly Leu Asp Cys Gly Pro Glu Ser 305 310 315 320

Ser Lys Lys Tyr Ala Glu Ala Val Thr Arg Ala Lys Gln Ile Val Trp 325 330 335

Asn Gly Pro Val Gly Val Phe Glu Trp Glu Ala Phe Ala Arg Gly Thr 340 345 350

Lys Ala Leu Met Asp Glu Val Val Lys Ala Thr Ser Arg Gly Cys Ile 355 360 365

Thr Ile Ile Gly Gly Gly Asp Thr Ala Thr Cys Cys Ala Lys Trp Asn 370 375 380

Thr Glu Asp Lys Val Ser His Val Ser Thr Gly Gly Gly Ala Ser Leu 385 390 395 400

Glu Leu Leu Glu Gly Lys Val Leu Pro Gly Val Asp Ala Leu Ser Asn 405 410 415

Ile

<210> 2595

<211> 468

<212> PRT

<213> Homo sapiens

<400> 2595

Met Ala Pro Pro Pro Ala Arg Val His Leu Gly Ala Phe Leu Ala Val

10

15

Thr Pro Asn Pro Gly Ser Ala Ala Ser Gly Thr Glu Ala Ala Ala Ala 20 25 30

Thr Pro Ser Lys Val Trp Gly Ser Ser Ala Gly Arg Ile Glu Pro Arg
35 40 45

Gly Gly Gly Arg Gly Ala Leu Pro Thr Ser Met Gly Gln His Gly Pro 50 55 60

Ser Ala Arg Ala Arg Ala Gly Arg Ala Pro Gly Pro Arg Pro Ala Arg 65 70 75 80

Glu Ala Ser Pro Arg Leu Arg Val His Lys Thr Phe Lys Phe Val Val 85 90 95

Val Gly Val Leu Leu Gln Val Val Pro Ser Ser Ala Ala Thr Ile Lys

Leu His Asp Gln Ser Ile Gly Thr Gln Gln Trp Glu His Ser Pro Leu 115 120 125

Gly Glu Leu Cys Pro Pro Gly Ser His Arg Ser Glu His Pro Gly Ala 130 135 140

Cys Asn Arg Cys Thr Glu Gly Val Gly Tyr Thr Asn Ala Ser Asn Asn 145 150 155 160

Leu Phe Ala Cys Leu Pro Cys Thr Ala Cys Lys Ser Asp Glu Glu Glu 165

Arg Ser Pro Cys Thr Thr Thr Arg Asn Thr Ala Cys Gln Cys Lys Pro

Gly Thr Phe Arg Asn Asp Asn Ser Ala Glu Met Cys Arg Lys Cys Ser 195 200 205

Arg Gly Cys Pro Arg Gly Met Val Lys Val Lys Asp Cys Thr Pro Trp 210 215 220

Ser Asp Ile Glu Cys Val His Lys Glu Ser Gly Asn Gly His Asn Ile 225 230 235 240

Trp Val Ile Leu Val Val Thr Leu Val Val Pro Leu Leu Leu Val Ala
245 . 250 . 255

Val Leu Ile Val Cys Cys Cys Ile Gly Ser Gly Cys Gly Gly Asp Pro 260 265 270

Lys Cys Met Asp Arg Val Cys Phe Trp Arg Leu Gly Leu Leu Arg Gly 275 280 285

Pro Gly Ala Glu Asp Asn Ala His Asn Glu Ile Leu Ser Asn Ala Asp 290 295 300

Ser Leu Ser Thr Phe Val Ser Glu Gln Gln Met Glu Ser Gln Glu Pro 305 310 315 320

Ala Asp Leu Thr Gly Val Thr Val Gln Ser Pro Gly Glu Ala Gln Cys 325 330 335

Leu Leu Gly Pro Ala Glu Ala Glu Gly Ser Gln Arg Arg Leu Leu 340 345 350

Val Pro Ala Asn Gly Ala Asp Pro Thr Glu Thr Leu Met Leu Phe Phe 355 360 365

Asp Lys Phe Ala Asn Ile Val Pro Phe Asp Ser Trp Asp Gln Leu Met 370 380

Arg Gln Leu Asp Leu Thr Lys Asn Glu Ile Asp Val Val Arg Ala Gly 385 390 395 400

Thr Ala Gly Pro Gly Asp Ala Leu Tyr Ala Met Leu Met Lys Trp Val 405 410 415

Asn Lys Thr Gly Arg Asn Ala Ser Ile His Thr Leu Leu Asp Ala Leu 420 425 430

Glu Arg Met Glu Glu Arg His Ala Lys Glu Lys Ile Gln Asp Leu Leu 435 440 445

Val Asp Ser Gly Lys Phe Ile Tyr Leu Glu Asp Gly Thr Gly Ser Ala 450 455 460

Val Ser Leu Glu 465

<210> 2596

<211> 185

<212> PRT

WO 2004/042346

<213> Homo sapiens

<400> 2596

Met Lys Leu Val Ser Val Ala Leu Met Tyr Leu Gly Ser Leu Ala Phe 5 10 15

Leu Gly Ala Asp Thr Ala Arg Leu Asp Val Ala Ser Glu Phe Arg Lys
20 25 30

Lys Trp Asn Lys Trp Ala Leu Ser Arg Gly Lys Arg Glu Leu Arg Met 35 40 45

Ser Ser Ser Tyr Pro Thr Gly Leu Ala Asp Val Lys Ala Gly Pro Ala 50 55 60

Gln Thr Leu Ile Arg Pro Gln Asp Met Lys Gly Ala Ser Arg Ser Pro 65 70 75 80

Glu Asp Ser Ser Pro Asp Ala Ala Arg Ile Arg Val Lys Arg Tyr Arg
85 90 95

Gln Ser Met Asn Asn Phe Gln Gly Leu Arg Ser Phe Gly Cys Arg Phe
100 105 110

Gly Thr Cys Thr Val Gln Lys Leu Ala His Gln Ile Tyr Gln Phe Thr

Asp Lys Asp Lys Asp Asn Val Ala Pro Arg Ser Lys Ile Ser Pro Gln
130 135 140

Gly Tyr Gly Arg Arg Arg Arg Ser Leu Pro Glu Ala Gly Pro Gly
145 150 155 160

Arg Thr Leu Val Ser Ser Lys Pro Gln Ala His Gly Ala Pro Ala Pro 165 170 175

Pro Ser Gly Ser Ala Pro His Phe Leu 180 185

<210> 2597

<211> 851

<212> PRT

<213> Homo sapiens

<400> 2597

Met Ser Ser Lys Gln Glu Ile Met Ser Asp Gln Arg Phe Arg Arg Val

Ala Lys Asp Pro Arg Phe Trp Glu Met Pro Glu Lys Asp Arg Lys Val 20 25 30

Lys Ile Asp Lys Arg Phe Arg Ala Met Phe His Asp Lys Lys Phe Lys 35 40 45

Leu Asn Tyr Ala Val Asp Lys Arg Gly Arg Pro Ile Ser His Ser Thr 50 55 60

Thr Glu Asp Leu Lys Arg Phe Tyr Asp Leu Ser Asp Ser Asp Ser Asn 65 70 75 80

Leu Ser Gly Glu Asp Ser Lys Ala Leu Ser Gln Lys Lys Ile Lys Lys 85 90 95

Lys Lys Thr Gln Thr Lys Lys Glu Ile Asp Ser Lys Asn Leu Val Glu
100 105 110

Lys Lys Glu Thr Lys Lys Ala Asn His Lys Gly Ser Glu Asn Lys 115 120 125

Thr Asp Leu Asp Asn Ser Ile Gly Ile Lys Lys Met Lys Thr Ser Cys 130 140

Lys Phe Lys Ile Asp Ser Asn Ile Ser Pro Lys Lys Asp Ser Lys Glu 145 150 155 160

Phe Thr Gln Lys Asn Lys Lys Glu Lys Lys Asn Ile Val Gln His Thr 165 170 175

Thr Asp Ser Ser Leu Glu Glu Lys Gln Arg Thr Leu Asp Ser Gly Thr
180 185 190

Ser Glu Ile Val Lys Ser Pro Arg Ile Glu Cys Ser Lys Thr Arg Arg 195 200 205

Glu Met Gln Ser Val Val Gln Leu Ile Met Thr Arg Asp Ser Asp Gly 210 215 220

Tyr Glu Asn Ser Thr Asp Gly Glu Met Cys Asp Lys Asp Ala Leu Glu 225 230 235 240

Glu Asp Ser Glu Ser Val Ser Glu Ile Gly Ser Asp Glu Glu Ser Glu 245 250 255

Asn Glu Ile Thr Ser Val Gly Arg Ala Ser Gly Asp Asp Asp Gly Ser

- Glu Asp Asp Glu Glu Glu Asp Glu Asp Glu Glu Glu Asp Glu Asp Glu 275 280 285
- Asp Ser Glu Asp Asp Asp Lys Ser Asp Ser Gly Pro Asp Leu Ala Arg 290 295 300
- Gly Lys Gly Asn Ile Glu Thr Ser Ser Glu Asp Glu Asp Asp Thr Ala 305 310 315 320
- Asp Leu Phe Pro Glu Glu Ser Gly Phe Glu His Ala Trp Arg Glu Leu 325 330 335
- Asp Lys Asp Ala Pro Arg Ala Asp Glu Ile Thr Arg Arg Leu Ala Val 340 345 350
- Cys Asn Met Asp Trp Asp Arg Leu Lys Ala Lys Asp Leu Leu Ala Leu 355 360 365
- Phe Asn Ser Phe Lys Pro Lys Gly Gly Val Ile Phe Ser Val Lys Ile 370 380
- Tyr Pro Ser Glu Phe Gly Lys Glu Arg Met Lys Glu Glu Gln Val Gln 385 390 395 400
- Gly Pro Val Glu Leu Leu Ser Ile Pro Glu Asp Ala Pro Glu Lys Asp 405 410 415
- Trp Thr Ser Arg Glu Lys Leu Arg Asp Tyr Gln Phe Lys Arg Leu Lys 420 425 430
- Tyr Tyr Tyr Ala Val Val Asp Cys Asp Ser Pro Glu Thr Ala Ser Lys
 435 440 445
- Ile Tyr Glu Asp Cys Asp Gly Leu Glu Phe Glu Ser Ser Cys Ser Phe
 450 455 460
- Ile Asp Leu Arg Phe Ile Pro Asp Asp Ile Thr Phe Asp Asp Glu Pro 465 470 475 480
- Lys Asp Val Ala Ser Glu Val Asn Leu Thr Ala Tyr Lys Pro Lys Tyr 485 490 495

Phe Thr Ser Ala Ala Met Gly Thr Ser Thr Val Glu Ile Thr Trp Asp 500 505 510

- Glu Thr Asp His Glu Arg Ile Thr Met Leu Asn Arg Lys Phe Lys Lys 515 520 525
- Glu Glu Leu Leu Asp Met Asp Phe Gln Ala Tyr Leu Ala Ser Ser Ser 530 540
- Glu Asp Glu Glu Glu Ile Glu Glu Glu Leu Gln Gly Asp Asp Gly Val 545 550 555 560
- Asn Val Glu Glu Asp Gly Lys Thr Lys Lys Ser Gln Lys Asp Asp Glu 565 570 575
- Glu Gln Ile Ala Lys Tyr Arg Gln Leu Leu Gln Val Ile Gln Glu Lys 580 585 590
- Glu Lys Lys Gly Lys Glu Asn Asp Met Glu Met Glu Ile Lys Trp Val 595 600 605
- Pro Gly Leu Lys Glu Ser Ala Glu Glu Met Val Lys Asn Lys Leu Glu 610 620
- Gly Lys Asp Lys Leu Thr Pro Trp Glu Gln Phe Leu Glu Lys Lys 625 635 640
- Glu Lys Lys Arg Leu Lys Arg Lys Gln Lys Ala Leu Ala Glu Glu Ala 645 650 655
- Ser Glu Glu Leu Pro Ser Asp Val Asp Leu Asn Asp Pro Tyr Phe
 660 665 670
- Ala Glu Glu Val Lys Gln Ile Gly Ile Asn Lys Lys Ser Val Lys Ser 675 680 685
- Ala Lys Asp Gly Thr Ser Pro Glu Glu Glu Ile Glu Ile Glu Arg Gln 690 695 700
- Lys Ala Glu Met Ala Leu Leu Met Met Asp Glu Asp Glu Asp Ser Lys 705 710 715 720
- Lys His Phe Asn Tyr Asn Lys Ile Val Glu His Gln Asn Leu Ser Lys 725 730 735
- Lys Lys Lys Glu Leu Met Lys Lys Glu Leu Ile Glu Asp Asp

750

740 745

Phe Glu Val Asn Val Asn Asp Ala Arg Phe Gln Ala Met Tyr Thr Ser 755 760

His Leu Phe Asn Leu Asp Pro Ser Asp Pro Asn Phe Lys Lys Thr Lys

Ala Met Glu Lys Ile Leu Glu Glu Lys Ala Arg Gln Arg Glu Arg Lys 795 800

Glu Gln Glu Leu Thr Gln Ala Ile Lys Lys Glu Ser Glu Ile Glu 810

Lys Glu Ser Gln Arg Lys Ser Ile Asp Pro Ala Leu Ser Met Leu Ile 825

Lys Ser Ile Lys Thr Lys Thr Glu Gln Phe Gln Ala Arg Lys Lys Gln 840

Lys Val Lys 850

<210> 2598

<211> 244 <212> PRT

<213> Homo sapiens

<400> 2598

Met Val Tyr Lys Thr Leu Phe Ala Leu Cys Ile Leu Thr Ala Gly Trp 10

Arg Val Gln Ser Leu Pro Thr Ser Ala Pro Leu Ser Val Ser Leu Pro 25

Thr Asn Ile Val Pro Pro Thr Thr Ile Trp Thr Ser Ser Pro Gln Asn 40

Thr Asp Ala Asp Thr Ala Ser Pro Ser Asn Gly Thr His Asn Asn Ser 55

Val Leu Pro Val Thr Ala Ser Ala Pro Thr Ser Leu Leu Pro Lys Asn 70

Ile Ser Ile Glu Ser Arg Glu Glu Glu Ile Thr Ser Pro Gly Ser Asn 85 90

Trp Glu Gly Thr Asn Thr Asp Pro Ser Pro Ser Gly Phe Ser Ser Thr

Ser Gly Gly Val His Leu Thr Thr Leu Glu Glu His Ser Leu Gly 115 120 125

Thr Pro Glu Ala Gly Val Ala Ala Thr Leu Ser Gln Ser Ala Ala Glu 130 135 140

Pro Pro Thr Leu Ile Ser Pro Gln Ala Pro Ala Ser Ser Pro Ser Ser 145 150 155 160

Leu Ser Thr Ser Pro Pro Glu Val Phe Ser Ala Ser Val Thr Thr Asn 165 170 175

His Ser Ser Thr Val Thr Ser Thr Gln Pro Thr Gly Ala Pro Thr Ala 180 185 190

Pro Glu Ser Pro Thr Glu Glu Ser Ser Ser Asp His Thr Pro Thr Ser 195 200 205

His Ala Thr Ala Glu Pro Val Pro Gln Glu Lys Thr Pro Pro Thr Thr 210 215 220

Val Ser Gly Lys Val Met Cys Glu Leu Ile Asp Met Glu Thr Pro Pro 225 230 235 240

Pro Phe Pro Gly

<210> 2599

<211> 395

<212> PRT

<213> Homo sapiens

<400> 2599

Met Pro Gly Arg Ser Cys Val Ala Leu Val Leu Leu Ala Ala Val 1 5 10 15

Ser Cys Ala Val Ala Gln His Ala Pro Pro Trp Thr Glu Asp Cys Arg
20 25 30

Lys Ser Thr Tyr Pro Pro Ser Gly Pro Thr Tyr Arg Gly Ala Val Pro 35 40 45

Trp Tyr Thr Ile Asn Leu Asp Leu Pro Pro Tyr Lys Arg Trp His Glu

50 55 60

Leu Met Leu Asp Lys Ala Pro Met Leu Lys Val Ile Val Asn Ser Leu 65 . 70 75 80

Lys Asn Met Ile Asn Thr Phe Val Pro Ser Gly Lys Val Met Gln Val 85 90 95

Val Asp Glu Lys Leu Pro Gly Leu Leu Gly Asn Phe Pro Gly Pro Phe 100 105 110

Glu Glu Glu Met Lys Gly Ile Ala Ala Val Thr Asp Ile Pro Leu Gly
115 120 125

Glu Ile Ile Ser Phe Asn Ile Phe Tyr Glu Leu Phe Thr Ile Cys Thr 130 135 140

Ser Ile Val Ala Glu Asp Lys Lys Gly His Leu Ile His Gly Arg Asn 145 150 155 160

Met Asp Phe Gly Val Phe Leu Gly Trp Asn Ile Asn Asn Asp Thr Trp . 165 170 175

Val Ile Thr Glu Gln Leu Lys Pro Leu Thr Val Asn Leu Asp Phe Gln 180 185 190

Arg Asn Asn Lys Thr Val Phe Lys Ala Ser Ser Phe Ala Gly Tyr Val

Gly Met Leu Thr Gly Phe Lys Pro Gly Leu Phe Ser Leu Thr Leu Asn 210 215 220

Glu Arg Phe Ser Ile Asn Gly Gly Tyr Leu Gly Ile Leu Glu Trp Ile 225 230 235 240

Leu Gly Lys Lys Asp Ala Met Trp Ile Gly Phe Leu Thr Arg Thr Val 245 250 255

Leu Glu Asn Ser Thr Ser Tyr Glu Glu Ala Lys Asn Leu Leu Thr Lys 260 265 270

Thr Lys Ile Leu Ala Pro Ala Tyr Phe Ile Leu Gly Gly Asn Gln Ser 275 280 285

Gly Glu Gly Cys Val Ile Thr Arg Asp Arg Lys Glu Ser Leu Asp Val 290 295 300

PCT/US2003/012946 WO 2004/042346

Tyr Glu Leu Asp Ala Lys Gln Gly Arg Trp Tyr Val Val Gln Thr Asn

Tyr Asp Arg Trp Lys His Pro Phe Phe Leu Asp Asp Arg Arg Thr Pro 325 330

Ala Lys Met Cys Leu Asn Arg Thr Ser Gln Glu Asn Ile Ser Phe Glu 340 345

Thr Met Tyr Asp Val Leu Ser Thr Lys Pro Val Leu Asn Lys Leu Thr 355

Val Tyr Thr Thr Leu Ile Asp Val Thr Lys Gly Gln Phe Glu Thr Tyr 370

Leu Arg Asp Cys Pro Asp Pro Cys Ile Gly Trp

<210> 2600 <211> 282 <212> PRT <213> Homo sapiens

<400> 2600

Met Ser Leu Leu Ala Thr Leu Gly Leu Glu Leu Asp Arg Ala Leu Leu 5 15

Pro Ala Ser Gly Leu Gly Trp Leu Val Asp Tyr Gly Lys Leu Pro Pro 20 25 30

Ala Pro Ala Pro Leu Ala Pro Tyr Glu Val Leu Gly Gly Ala Leu Glu 35 40 45

Gly Gly Leu Pro Val Gly Gly Glu Pro Leu Ala Gly Asp Gly Phe Ser 50 55 60

Asp Trp Met Thr Glu Arg Val Asp Phe Thr Ala Leu Leu Pro Leu Glu 65 70 75

Pro Pro Leu Pro Pro Gly Thr Leu Pro Gln Pro Ser Pro Thr Pro Pro 85 90

Asp Leu Glu Ala Met Ala Ser Leu Leu Lys Lys Glu Leu Glu Gln Met 100 105

Glu Asp Phe Phe Leu Asp Ala Pro Pro Leu Pro Pro Pro Ser Pro Pro 115 120 125

Pro Leu Pro Pro Pro Pro Leu Pro Pro Ala Pro Ser Leu Pro Leu Ser 130 135 140

Leu Pro Ser Phe Asp Leu Pro Gln Pro Pro Val Leu Asp Thr Leu Asp 145 150 155 160

Leu Leu Ala Ile Tyr Cys Arg Asn Glu Ala Gly Gln Glu Glu Val Gly 165 170 175

Met Pro Pro Leu Pro Pro Pro Gln Gln Pro Pro Pro Pro Pro Pro Pro 180 185 190

Gln Pro Ser Arg Leu Ala Pro Tyr Pro His Pro Ala Thr Thr Arg Gly
195 200 205

Asp Arg Lys Gln Lys Lys Arg Asp Gln Asn Lys Ser Ala Ala Leu Arg 210 215 220

Tyr Arg Gln Arg Lys Arg Ala Glu Gly Glu Ala Leu Glu Gly Glu Cys 225 230 235 240

Gln Gly Leu Glu Ala Arg Asn Arg Glu Leu Lys Glu Arg Ala Glu Ser 245 250 255

Val Glu Arg Glu Ile Gln Tyr Val Lys Asp Leu Leu Ile Glu Val Tyr
260 265 270

Lys Ala Arg Ser Gln Arg Thr Arg Ser Cys 275 280

<210> 2601

<211> 23

<212> PRT

<213> Homo sapiens

<400> 2601

Met Glu Thr Ser Glu Gly Pro Gly Leu Glu Ser Thr Gly Ser Tyr Leu 1 5 10 15

Gly Ile Gln Gln Arg Ser Pro 20

<210> 2602 <211> 491

<212> PRT

<213> Homo sapiens

<400> 2602

Met Cys Asn Thr Asn Met Ser Val Pro Thr Asp Gly Ala Val Thr Thr 1 5 10 15

Ser Gln Ile Pro Ala Ser Glu Gln Glu Thr Leu Val Arg Pro Lys Pro 20 25 30

Leu Leu Lys Leu Lys Ser Val Gly Ala Gln Lys Asp Thr Tyr 35 40 45

Thr Met Lys Glu Val Leu Phe Tyr Leu Gly Gln Tyr Ile Met Thr Lys 50 55 60

Arg Leu Tyr Asp Glu Lys Gln Gln His Ile Val Tyr Cys Ser Asn Asp 65 70 75 80

Leu Leu Gly Asp Leu Phe Gly Val Pro Ser Phe Ser Val Lys Glu His 85 90 95

Arg Lys Ile Tyr Thr Met Ile Tyr Arg Asn Leu Val Val Val Asn Gln
100 105 110

Gln Glu Ser Ser Asp Ser Gly Thr Ser Val Ser Glu Asn Arg Cys His
115 120 125

Leu Glu Gly Gly Ser Asp Gln Lys Asp Leu Val Gln Glu Leu Gln Glu 130 135 140

Glu Lys Pro Ser Ser Ser His Leu Val Ser Arg Pro Ser Thr Ser Ser 145 150 155 160

Arg Arg Arg Ala Ile Ser Glu Thr Glu Glu Asn Ser Asp Glu Leu Ser 165 170 175

Gly Glu Arg Gln Arg Lys Arg His Lys Ser Asp Ser Ile Ser Leu Ser 180 185 190

Phe Asp Glu Ser Leu Ala Leu Cys Val Ile Arg Glu Ile Cys Cys Glu
195 200 205

Arg Ser Ser Ser Ser Glu Ser Thr Gly Thr Pro Ser Asn Pro Asp Leu 210 215 220

Asp Ala Gly Val Ser Glu His Ser Gly Asp Trp Leu Asp Gln Asp Ser 225 230 235 240

- Val Ser Asp Gln Phe Ser Val Glu Phe Glu Val Glu Ser Leu Asp Ser 245 250 255
- Glu Asp Tyr Ser Leu Ser Glu Glu Gly Gln Glu Leu Ser Asp Glu Asp 260 265 270
- Asp Glu Val Tyr Gln Val Thr Val Tyr Gln Ala Gly Glu Ser Asp Thr 275 280 285
- Asp Ser Phe Glu Glu Asp Pro Glu Ile Ser Leu Ala Asp Tyr Trp Lys 290 295 300
- Cys Thr Ser Cys Asn Glu Met Asn Pro Pro Leu Pro Ser His Cys Asn 305 310 315 320
- Arg Cys Trp Ala Leu Arg Glu Asn Trp Leu Pro Glu Asp Lys Gly Lys 325 330 335
- Asp Lys Gly Glu Ile Ser Glu Lys Ala Lys Leu Glu Asn Ser Thr Gln 340 345 350
- Ala Glu Glu Gly Phe Asp Val Pro Asp Cys Lys Lys Thr Ile Val Asn 355 360 365
- Asp Ser Arg Glu Ser Cys Val Glu Glu Asn Asp Asp Lys Ile Thr Gln 370 375 380
- Ala Ser Gln Ser Gln Glu Ser Glu Asp Tyr Ser Gln Pro Ser Thr Ser 385 390 395 400
- Ser Ser Ile Ile Tyr Ser Ser Gln Glu Asp Val Lys Glu Phe Glu Arg 405 410 415
- Glu Glu Thr Gln Asp Lys Glu Glu Ser Val Glu Ser Ser Leu Pro Leu 420 425 430
- Asn Ala Ile Glu Pro Cys Val Ile Cys Gln Gly Arg Pro Lys Asn Gly 435 440 445
- Cys Ile Val His Gly Lys Thr Gly His Leu Met Ala Cys Phe Thr Cys 450 455 460
- Ala Lys Lys Leu Lys Lys Arg Asn Lys Pro Cys Pro Val Cys Arg Gln

465 470 475 480

Pro Ile Gln Met Ile Val Leu Thr Tyr Phe Pro 485 490

<210> 2603

<211> 950

<212> PRT

<213> Homo sapiens

<400> 2603

Met Gly Val Pro Ala Phe Phe Arg Trp Leu Ser Arg Lys Tyr Pro Ser

Ile Ile Val Asn Cys Val Glu Glu Lys Pro Lys Glu Cys Asn Gly Val 20 25 30

Lys Ile Pro Val Asp Ala Ser Lys Pro Asn Pro Asn Asp Val Glu Phe 35 40 45

Asp Asn Leu Tyr Leu Asp Met Asn Gly Ile Ile His Pro Cys Thr His 50 55 60

Pro Glu Asp Lys Pro Ala Pro Lys Asn Glu Asp Glu Met Met Val Ala 65 70 75 80

Ile Phe Glu Tyr Ile Asp Arg Leu Phe Ser Ile Val Arg Pro Arg Arg 85 90 95

Leu Leu Tyr Met Ala Ile Asp Gly Val Ala Pro Arg Ala Lys Met Asn 100 105 110

Gln Gln Arg Ser Arg Arg Phe Arg Ala Ser Lys Glu Gly Met Glu Ala 115 120 125

Ala Val Glu Lys Gln Arg Val Arg Glu Glu Ile Leu Ala Lys Gly Gly
130 140

Phe Leu Pro Pro Glu Glu Ile Lys Glu Arg Phe Asp Ser Asn Cys Ile 145 150 155 160

Thr Pro Gly Thr Glu Phe Met Asp Asn Leu Ala Lys Cys Leu Arg Tyr 165 170 175

Tyr Ile Ala Asp Arg Leu Asn Asn Asp Pro Gly Trp Lys Asn Leu Thr 180 185 190 Val Ile Leu Ser Asp Ala Ser Ala Pro Gly Glu Gly Glu His Lys Ile 195 200 205

- Met Asp Tyr Ile Arg Arg Gln Arg Ala Gln Pro Asn His Asp Pro Asn 210 215 220
- Thr His His Cys Leu Cys Gly Ala Asp Ala Asp Leu Ile Met Leu Gly 225 230 235 240
- Leu Ala Thr His Glu Pro Asn Phe Thr Ile Ile Arg Glu Glu Phe Lys
 245 250 255
- Pro Asn Lys Pro Lys Pro Cys Gly Leu Cys Asn Gln Phe Gly His Glu 260 265 270
- Val Lys Asp Cys Glu Gly Leu Pro Arg Glu Lys Lys Gly Lys His Asp 275 280 285
- Glu Leu Ala Asp Ser Leu Pro Cys Ala Glu Gly Glu Phe Ile Phe Leu 290 295 300
- Arg Leu Asn Val Leu Arg Glu Tyr Leu Glu Arg Glu Leu Thr Met Ala 305 310 315 320
- Ser Leu Pro Phe Thr Phe Asp Val Glu Arg Ser Ile Asp Asp Trp Val 325 330 335
- Phe Met Cys Phe Phe Val Gly Asn Asp Phe Leu Pro His Leu Pro Ser 340 345 350
- Leu Glu Ile Arg Glu Asn Ala Ile Asp Arg Leu Val Asn Ile Tyr Lys 355 360 365
- Asn Val Val His Lys Thr Gly Gly Tyr Leu Thr Glu Ser Gly Tyr Val 370 375 380
- Asn Leu Gln Arg Val Gln Met Ile Met Leu Ala Val Gly Glu Val Glu 385 390 395 400
- Asp Ser Ile Phe Lys Lys Arg Lys Asp Asp Glu Asp Ser Phe Arg Arg 405 410 415
- Arg Gln Lys Glu Lys Arg Lys Arg Met Lys Arg Asp Gln Pro Ala Phe 420 425 430

Thr Pro Ser Gly Ile Leu Thr Pro His Ala Leu Gly Ser Arg Asn Ser 435 440 445

- Pro Gly Ser Gln Val Ala Ser Asn Pro Arg Gln Ala Ala Tyr Glu Met 450 455 460
- Arg Met Gln Asn Asn Ser Ser Pro Ser Ile Ser Pro Asn Thr Ser Phe 465 470 475 480
- Thr Ser Asp Gly Ser Pro Ser Pro Leu Gly Gly Ile Lys Arg Lys Ala 485 490 495
- Glu Asp Ser Asp Ser Glu Pro Glu Pro Glu Asp Asn Val Arg Leu Trp
 500 505 510
- Glu Ala Gly Trp Lys Gln Arg Tyr Tyr Lys Asn Lys Phe Asp Val Asp 515 520 525
- Ala Ala Asp Glu Lys Phe Arg Arg Lys Val Val Gln Ser Tyr Val Glu 530 535 540
- Gly Leu Cys Trp Val Leu Arg Tyr Tyr Tyr Gln Gly Cys Ala Ser Trp 545 550 555 560
- Lys Trp Tyr Tyr Pro Phe His Tyr Ala Pro Phe Ala Ser Asp Phe Glu 565 570 575
- Gly Ile Ala Asp Met Pro Ser Asp Phe Glu Lys Gly Thr Lys Pro Phe 580 585 590
- Lys Pro Leu Glu Gln Leu Met Gly Val Phe Pro Ala Ala Ser Gly Asn 595 600 605
- Phe Leu Pro Pro Ser Trp Arg Lys Leu Met Ser Asp Pro Asp Ser Ser 610 615 620
- Ile Ile Asp Phe Tyr Pro Glu Asp Phe Ala Ile Asp Leu Asn Gly Lys 625 630 635 640
- Lys Tyr Ala Trp Gln Gly Val Ala Leu Leu Pro Phe Val Asp Glu Arg 645 650 655
- Arg Leu Arg Ala Ala Leu Glu Glu Val Tyr Pro Asp Leu Thr Pro Glu 660 665 670
- Glu Thr Arg Arg Asn Ser Leu Gly Gly Asp Val Leu Phe Val Gly Lys

675 680 685

His His Pro Leu His Asp Phe Ile Leu Glu Leu Tyr Gln Thr Gly Ser 690 695 700

Thr Glu Pro Val Glu Val Pro Pro Glu Leu Cys His Gly Ile Gln Gly 705 710 715 720

Lys Phe Ser Leu Asp Glu Glu Ala Ile Leu Pro Asp Gln Ile Val Cys 725 730 735

Ser Pro Val Pro Met Leu Arg Asp Leu Thr Gln Asn Thr Val Val Ser 740 745 750

Ile Asn Phe Lys Asp Pro Gln Phe Ala Glu Asp Tyr Ile Phe Lys Ala 755 760 765

Val Met Leu Pro Gly Ala Arg Lys Pro Ala Ala Val Leu Lys Pro Ser 770 775 780

Asp Trp Glu Lys Ser Ser Asn Gly Arg Gln Trp Lys Pro Gln Leu Gly 785 790 795 800

Phe Asn Arg Asp Arg Pro Val His Leu Asp Gln Ala Ala Phe Arg 805 810 815

Thr Leu Gly His Val Met Pro Arg Gly Ser Gly Thr Gly Ile Tyr Ser 820 825 830

Asn Ala Pro Pro Pro Val Thr Tyr Gln Gly Asn Leu Tyr Arg Pro 835 840 845

Leu Leu Arg Gly Gln Ala Gln Ile Pro Lys Leu Met Ser Asn Met Arg 850 855 860

Pro Gln Asp Ser Trp Arg Gly Pro Pro Pro Leu Phe Gln Gln Arg 865 870 875 880

Phe Asp Arg Gly Val Gly Ala Glu Pro Leu Leu Pro Trp Asn Arg Met 885 890 895

Leu Gln Thr Gln Asn Ala Ala Phe Gln Pro Asn Gln Tyr Gln Met Leu 900 905 910

Ala Gly Pro Gly Gly Tyr Pro Pro Arg Arg Asp Asp Arg Gly Gly Arg 915 920 925

Gln Gly Tyr Pro Arg Glu Gly Arg Lys Tyr Pro Leu Pro Pro Pro Ser 930 935 940

Gly Arg Tyr Asn Trp Asn 945 950

<210> 2604

<211> 313

<212> PRT

<213> Homo sapiens

<400> 2604

Met Ser Gln Ser Arg His Arg Ala Glu Ala Pro Pro Leu Glu Arg Glu

1 10 15

Asp Ser Gly Thr Phe Ser Leu Gly Lys Met Ile Thr Ala Lys Pro Gly 20 25 30

Lys Thr Pro Ile Gln Val Leu His Glu Tyr Gly Met Lys Thr Lys Asn 35 40 45

Ile Pro Val Tyr Glu Cys Glu Arg Ser Asp Val Gln Ile His Val Pro 50 55 60

Thr Phe Thr Phe Arg Val Thr Val Gly Asp Ile Thr Cys Thr Gly Glu 65 70 75 80

Gly Thr Ser Lys Leu Ala Lys His Arg Ala Ala Glu Ala Ala Ile 85 90 95

Asn Ile Leu Lys Ala Asn Ala Ser Ile Cys Phe Ala Val Pro Asp Pro 100 105 110

Leu Met Pro Asp Pro Ser Lys Gln Pro Lys Asn Gln Leu Asn Pro Ile 115 120 125

Gly Ser Leu Gln Glu Leu Ala Ile His His Gly Trp Arg Leu Pro Glu 130 135 140

Tyr Thr Leu Ser Gln Glu Gly Gly Pro Ala His Lys Arg Glu Tyr Thr
145 150 155 160

Thr Ile Cys Arg Leu Glu Ser Phe Met Glu Thr Gly Lys Gly Ala Ser 165 170 175 Lys Lys Gln Ala Lys Arg Asn Ala Ala Glu Lys Phe Leu Ala Lys Phe 180 185 190

Ser Asn Ile Ser Pro Glu Asn His Ile Ser Leu Thr Asn Val Val Gly
195 200 205

His Ser Leu Gly Cys Thr Trp His Ser Leu Arg Asn Ser Pro Gly Glu 210 215 220

Lys Ile Asn Leu Leu Lys Arg Ser Leu Leu Ser Ile Pro Asn Thr Asp 225 230 235 240

Tyr Ile Gln Leu Leu Ser Glu Ile Ala Lys Glu Gln Gly Phe Asn Ile 245 250 255

Thr Tyr Leu Asp Ile Asp Glu Leu Ser Ala Asn Gly Gln Tyr Gln Cys 260 265 270

Leu Ala Glu Leu Ser Thr Ser Pro Ile Thr Val Cys His Gly Ser Gly 275 280 285

Ile Ser Cys Gly Asn Ala Gln Ser Asp Ala Ala His Asn Ala Leu Gln 290 295 300

Tyr Leu Lys Ile Ile Ala Glu Arg Lys 305 310

<210> 2605

<211> 198

<212> PRT

<213> Homo sapiens

<400> 2605

Met Ser Asn Val Arg Val Ser Asn Gly Ser Pro Ser Leu Glu Arg Met

1 10 15

Asp Ala Arg Gln Ala Glu His Pro Lys Pro Ser Ala Cys Arg Asn Leu 20 25 30

Phe Gly Pro Val Asp His Glu Glu Leu Thr Arg Asp Leu Glu Lys His 35 40 45

Cys Arg Asp Met Glu Glu Ala Ser Gln Arg Lys Trp Asn Phe Asp Phe 50 55 60

Gln Asn His Lys Pro Leu Glu Gly Lys Tyr Glu Trp Gln Glu Val Glu 65 70 . 75 80

Lys Gly Ser Leu Pro Glu Phe Tyr Tyr Arg Pro Pro Arg Pro Pro Lys 90

Gly Ala Cys Lys Val Pro Ala Gln Glu Ser Gln Asp Val Ser Gly Ser 105

Arg Pro Ala Ala Pro Leu Ile Gly Ala Pro Ala Asn Ser Glu Asp Thr 120

His Leu Val Asp Pro Lys Thr Asp Pro Ser Asp Ser Gln Thr Gly Leu

Ala Glu Gln Cys Ala Gly Ile Arg Lys Arg Pro Ala Thr Asp Asp Ser

Ser Thr Gln Asn Lys Arg Ala Asn Arg Thr Glu Glu Asn Val Ser Asp 165 170

Gly Ser Pro Asn Ala Gly Ser Val Glu Gln Thr Pro Lys Lys Pro Gly 180 185

Leu Arg Arg Arg Gln Thr 195

<210> 2606 <211> 727

<212> PRT

<213> Homo sapiens

<400> 2606

Met Arg Pro Leu Leu Leu Ala Leu Leu Gly Trp Leu Leu Ala 5 15

Glu Ala Lys Gly Asp Ala Lys Pro Glu Asp Asn Leu Leu Val Leu Thr 20 30

Val Ala Thr Lys Glu Thr Glu Gly Phe Arg Arg Phe Lys Arg Ser Ala 35 40 . 45

Gln Phe Phe Asn Tyr Lys Ile Gln Ala Leu Gly Leu Gly Glu Asp Trp 50 55

Asn Val Glu Lys Gly Thr Ser Ala Gly Gly Gly Gln Lys Val Arg Leu 65 70 75

Leu Lys Lys Ala Leu Glu Lys His Ala Asp Lys Glu Asp Leu Val Ile 85 90 95

- Leu Phe Thr Asp Ser Tyr Asp Val Leu Phe Ala Ser Gly Pro Arg Glu
 100 105 110
- Leu Leu Lys Lys Phe Arg Gln Ala Arg Ser Gln Val Val Phe Ser Ala 115 120 125
- Glu Glu Leu Ile Tyr Pro Asp Arg Arg Leu Glu Thr Lys Tyr Pro Val
- Val Ser Asp Gly Lys Arg Phe Leu Gly Ser Gly Gly Phe Ile Gly Tyr 145 150 155 160
- Ala Pro Asn Leu Ser Lys Leu Val Ala Glu Trp Glu Gly Gln Asp Ser 165 170 175
- Asp Ser Asp Gln Leu Phe Tyr Thr Lys Ile Phe Leu Asp Pro Glu Lys
 180 185 190
- Arg Glu Gln Ile Asn Ile Thr Leu Asp His Arg Cys Arg Ile Phe Gln
 195 200 205
- Asn Leu Asp Gly Ala Leu Asp Glu Val Val Leu Lys Phe Glu Met Gly 210 215 220
- His Val Arg Ala Arg Asn Leu Ala Tyr Asp Thr Leu Pro Val Leu Ile 225 230 235 240
- His Gly Asn Gly Pro Thr Lys Leu Gln Leu Asn Tyr Leu Gly Asn Tyr 245 250 255
- Ile Pro Arg Phe Trp Thr Phe Glu Thr Gly Cys Thr Val Cys Asp Glu 260 265 270
- Gly Leu Arg Ser Leu Lys Gly Ile Gly Asp Glu Ala Leu Pro Thr Val 275 280 285
- Leu Val Gly Val Phe Ile Glu Gln Pro Thr Pro Phe Val Ser Leu Phe 290 295 300
- Phe Gln Arg Leu Leu Arg Leu His Tyr Pro Gln Lys His Met Arg Leu 305 310 315 320
- Phe Ile His Asn His Glu Gln His His Lys Ala Gln Val Glu Glu Phe

325 330 335

Leu Ala Gln His Gly Ser Glu Tyr Gln Ser Val Lys Leu Val Gly Pro 340 345 350

Glu Val Arg Met Ala Asn Ala Asp Ala Arg Asn Met Gly Ala Asp Leu 355 360 365

Cys Arg Gln Asp Arg Ser Cys Thr Tyr Tyr Phe Ser Val Asp Ala Asp 370 375 380

Val Ala Leu Thr Glu Pro Asn Ser Leu Arg Leu Leu Ile Gln Gln Asn 385 390 395 400

Lys Asn Val Ile Ala Pro Leu Met Thr Arg His Gly Arg Leu Trp Ser

Asn Phe Trp Gly Ala Leu Ser Ala Asp Gly Tyr Tyr Ala Arg Ser Glu 420 425 430

Asp Tyr Val Asp Ile Val Gln Gly Arg Arg Val Gly Val Trp Asn Val 435 440 445

Pro Tyr Ile Ser Asn Ile Tyr Leu Ile Lys Gly Ser Ala Leu Arg Gly
450 455 460

Glu Leu Gln Ser Ser Asp Leu Phe His His Ser Lys Leu Asp Pro Asp 465 470 475 480

Met Ala Phe Cys Ala Asn Ile Arg Gln Gln Asp Val Phe Met Phe Leu 485 490 495

Thr Asn Arg His Thr Leu Gly His Leu Leu Ser Leu Asp Ser Tyr Arg 500 505 510

Thr Thr His Leu His Asn Asp Leu Trp Glu Val Phe Ser Asn Pro Glu 515 520 525

Asp Trp Lys Glu Lys Tyr Ile His Gln Asn Tyr Thr Lys Ala Leu Ala 530 535 540

Gly Lys Leu Val Glu Thr Pro Cys Pro Asp Val Tyr Trp Phe Pro Ile 545 550 555 560

Phe Thr Glu Val Ala Cys Asp Glu Leu Val Glu Glu Met Glu His Phe 565 570 575

Gly Gln Trp Ser Leu Gly Asn Asn Lys Asp Asn Arg Ile Gln Gly Gly 580 585 590

Tyr Glu Asn Val Pro Thr Ile Asp Ile His Met Asn Gln Ile Gly Phe 595 600 605

Glu Arg Glu Trp His Lys Phe Leu Leu Glu Tyr Ile Ala Pro Met Thr 610 615 620

Glu Lys Leu Tyr Pro Gly Tyr Tyr Thr Arg Ala Gln Phe Asp Leu Ala 625 630 635 640

Phe Val Val Arg Tyr Lys Pro Asp Glu Gln Pro Ser Leu Met Pro His 645 650 655

His Asp Ala Ser Thr Phe Thr Ile Asn Ile Ala Leu Asn Arg Val Gly 660 665 670

Val Asp Tyr Glu Gly Gly Gly Cys Arg Phe Leu Arg Tyr Asn Cys Ser 675 680 685

Ile Arg Ala Pro Arg Lys Gly Trp Thr Leu Met His Pro Gly Arg Leu 690 695 700

Thr His Tyr His Glu Gly Leu Pro Thr Thr Arg Gly Thr Arg Tyr Ile
705 710 715 720

Ala Val Ser Phe Val Asp Pro 725

<210> 2607

<211> 537

<212> PRT

<213> Homo sapiens

<400> 2607

Met Ala Trp Arg Gly Ala Gly Pro Ser Val Pro Gly Ala Pro Gly Gly
1 5 10 15

Val Gly Leu Ser Leu Gly Leu Leu Leu Gln Leu Leu Leu Leu Gly 20 25 30

Pro Ala Arg Gly Phe Gly Asp Glu Glu Glu Arg Arg Cys Asp Pro Ile 35 40 45

Arg Ile Ser Met Cys Gln Asn Leu Gly Tyr Asn Val Thr Lys Met Pro 50 55 60

Asn Leu Val Gly His Glu Leu Gln Thr Asp Ala Glu Leu Gln Leu Thr 65 70 75 80

Thr Phe Thr Pro Leu Ile Gln Tyr Gly Cys Ser Ser Gln Leu Gln Phe
85 90 95

Phe Leu Cys Ser Val Tyr Val Pro Met Cys Thr Glu Lys Ile Asn Ile 100 105 110

Pro Ile Gly Pro Cys Gly Gly Met Cys Leu Ser Val Lys Arg Arg Cys 115 120 125

Glu Pro Val Leu Lys Glu Phe Gly Phe Ala Trp Pro Glu Ser Leu Asn 130 135 140

Cys Ser Lys Phe Pro Pro Gln Asn Asp His Asn His Met Cys Met Glu 145 150 155 160

Gly Pro Gly Asp Glu Glu Val Pro Leu Pro His Lys Thr Pro Ile Gln 165 170 175

Pro Gly Glu Cys His Ser Val Gly Thr Asn Ser Asp Gln Tyr Ile 180 185 190

Trp Val Lys Arg Ser Leu Asn Cys Val Leu Lys Cys Gly Tyr Asp Ala 195 200 205

Gly Leu Tyr Ser Arg Ser Ala Lys Glu Phe Thr Asp Ile Trp Met Ala 210 215 220

Val Trp Ala Ser Leu Cys Phe Ile Ser Thr Ala Phe Thr Val Leu Thr 225 230 235 240

Phe Leu Ile Asp Ser Ser Arg Phe Ser Tyr Pro Glu Arg Pro Ile Ile
245 250 255

Phe Leu Ser Met Cys Tyr Asn Ile Tyr Ser Ile Ala Tyr Ile Val Arg 260 265 270

Leu Thr Val Gly Arg Glu Arg Ile Ser Cys Asp Phe Glu Glu Ala Ala 275 280 285

Glu Pro Val Leu Ile Gln Glu Gly Leu Lys Asn Thr Gly Cys Ala Ile

300

290

295

Ile Phe Leu Leu Met Tyr Phe Phe Gly Met Ala Ser Ser Ile Trp Trp-305 310 315 320

Val Ile Leu Thr Leu Thr Trp Phe Leu Ala Ala Gly Leu Lys Trp Gly 325 330 335

His Glu Ala Ile Glu Met His Ser Ser Tyr Phe His Ile Ala Ala Trp 340 345 350

Ala Ile Pro Ala Val Lys Thr Ile Val Ile Leu Ile Met Arg Leu Val 355 360 365

Asp Ala Asp Glu Leu Thr Gly Leu Cys Tyr Val Gly Asn Gln Asn Leu 370 380

Asp Ala Leu Thr Gly Phe Val Val Ala Pro Leu Phe Thr Tyr Leu Val 385 390 395 400

Ile Gly Thr Leu Phe Ile Ala Ala Gly Leu Val Ala Leu Phe Lys Ile 405 410 415

Arg Ser Asn Leu Gln Lys Asp Gly Thr Lys Thr Asp Lys Leu Glu Arg 420 425 430

Leu Met Val Lys Ile Gly Val Phe Ser Val Leu Tyr Thr Val Pro Ala
435 440 445

Thr Cys Val Ile Ala Cys Tyr Phe Tyr Glu Ile Ser Asn Trp Ala Leu 450 455 460

Phe Arg Tyr Ser Ala Asp Asp Ser Asn Met Ala Val Glu Met Leu Lys 465 470 475 480

Ile Phe Met Ser Leu Leu Val Gly Ile Thr Ser Gly Met Trp Ile Trp 485 490 495

Ser Ala Lys Thr Leu His Thr Trp Gln Lys Cys Ser Asn Arg Leu Val

Asn Ser Gly Lys Val Lys Arg Glu Lys Arg Gly Asn Gly Trp Val Lys 515 520 525

Pro Gly Lys Gly Ser Glu Thr Val Val 530 535

<210> 2608

<211> 362

<212> PRT

<213> Homo sapiens

<400> 2608

Met Leu Val Met Ala Pro Arg Thr Val Leu Leu Leu Leu Ser Ala Ala 1 5 10 15

Leu Ala Leu Thr Glu Thr Trp Ala Gly Ser His Ser Met Arg Tyr Phe
20 25 30

Tyr Thr Ser Val Ser Arg Pro Gly Arg Gly Glu Pro Arg Phe Ile Ser 35 40 . 45

Val Gly Tyr Val Asp Asp Thr Gln Phe Val Arg Phe Asp Ser Asp Ala 50 55 60

Ala Ser Pro Arg Glu Glu Pro Arg Ala Pro Trp Ile Glu Gln Glu Gly 65 70 75 80

Pro Glu Tyr Trp Asp Arg Asn Thr Gln Ile Tyr Lys Ala Gln Ala Gln 85 90 95

Thr Asp Arg Glu Ser Leu Arg Asn Leu Arg Gly Tyr Tyr Asn Gln Ser 100 105 - 110

Glu Ala Gly Ser His Thr Leu Gln Ser Met Tyr Gly Cys Asp Val Gly
115 120 125

Pro Asp Gly Arg Leu Leu Arg Gly His Asp Gln Tyr Ala Tyr Asp Gly 130 135 140

Lys Asp Tyr Ile Ala Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Ala 145 150 155 160

Asp Thr Ala Ala Gln Ile Thr Gln Arg Lys Trp Glu Ala Ala Arg Glu 165 170 175

Ala Glu Gln Arg Arg Ala Tyr Leu Glu Gly Glu Cys Val Glu Trp Leu 180 185 190

Arg Arg Tyr Leu Glu Asn Gly Lys Asp Lys Leu Glu Arg Ala Asp Pro 195 200 205

Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu Ala Thr 210 215 220

Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr Leu Thr 225 235 240

Trp Gln Arg Asp Gly Glu Asp Gln Thr Gln Asp Thr Glu Leu Val Glu 245 250 255

Thr Arg Pro Ala Gly Asp Arg Thr Phe Gln Lys Trp Ala Ala Val Val 260 265 270

Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln His Glu 275 280 285

Gly Leu Pro Lys Pro Leu Thr Leu Arg Trp Glu Pro Ser Ser Gln Ser 290 295 300

Thr Val Pro Ile Val Gly Ile Val Ala Gly Leu Ala Val Leu Ala Val 305 310 315 320

Val Val Ile Gly Ala Val Val Ala Ala Val Met Cys Arg Arg Lys Ser 325 330 335

Ser Gly Gly Lys Gly Gly Ser Tyr Ser Gln Ala Ala Cys Ser Asp Ser 340 345 350

Ala Gln Gly Ser Asp Val Ser Leu Thr Ala 355 360

<210> 2609

<211> 350

<212> PRT

<213> Homo sapiens

<400> 2609

Met Glu Thr Asn Ser Ser Leu Pro Thr Asn Ile Ser Gly Gly Thr Pro 1 5 10 15

Ala Val Ser Ala Gly Tyr Leu Phe Leu Asp Ile Ile Thr Tyr Leu Val 20 25 30

Phe Ala Val Thr Phe Val Leu Gly Val Leu Gly Asn Gly Leu Val Ile 35 40 45

Trp Val Ala Gly Phe Arg Met Thr His Thr Val Thr Thr Ile Ser Tyr 50 55 . 60

Leu Asn Leu Ala Val Ala Asp Phe Cys Phe Thr Ser Thr Leu Pro Phe 65 70 75 80

- Phe Met Val Arg Lys Ala Met Gly Gly His Trp Pro Phe Gly Trp Phe 85 90 95
- Leu Cys Lys Phe Val Phe Thr Ile Val Asp Ile Asn Leu Phe Gly Ser
- Val Phe Leu Ile Ala Leu Ile Ala Leu Asp Arg Cys Val Cys Val Leu 115 120 125
- His Pro Val Trp Thr Gln Asn His Arg Thr Val Ser Leu Ala Lys Lys
 130 135 140
- Val Ile Ile Gly Pro Trp Val Met Ala Leu Leu Leu Thr Leu Pro Val 145 150 155 160
- Ile Ile Arg Val Thr Thr Val Pro Gly Lys Thr Gly Thr Val Ala Cys
 165 170 175
- Thr Phe Asn Phe Ser Pro Trp Thr Asn Asp Pro Lys Glu Arg Ile Asn 180 185 190
- Val Ala Val Ala Met Leu Thr Val Arg Gly Ile Ile Arg Phe Ile Ile
 195 200 205
- Gly Phe Ser Ala Pro Met Ser Ile Val Ala Val Ser Tyr Gly Leu Ile 210 215 220
- Ala Thr Lys Ile His Lys Gln Gly Leu Ile Lys Ser Ser Arg Pro Leu 225 230 235 240
- Arg Val Leu Ser Phe Val Ala Ala Ala Phe Phe Leu Cys Trp Ser Pro 245 250 255
- Tyr Gln Val Val Ala Leu Ile Ala Thr Val Arg Ile Arg Glu Leu Leu 260 265 270
- Gln Gly Met Tyr Lys Glu Ile Gly Ile Ala Val Asp Val Thr Ser Ala 275 280 285
- Leu Ala Phe Phe Asn Ser Cys Leu Asn Pro Met Leu Tyr Val Phe Met 290 295 300

Gly Gln Asp Phe Arg Glu Arg Leu Ile His Ala Leu Pro Ala Ser Leu 305 310 315 320

Glu Arg Ala Leu Thr Glu Asp Ser Thr Gln Thr Ser Asp Thr Ala Thr 325 330 335

Asn Ser Thr Leu Pro Ser Ala Glu Val Glu Leu Gln Ala Lys 340 345 . 350

<210> 2610

<211> 638

<212> PRT

<213> Homo sapiens

<400> 2610

Met Ser Ala Ser Ser Ser Gly Gly Ser Pro Arg Phe Pro Ser Cys Gly
1 5 10 15

Lys Asn Gly Val Thr Ser Leu Thr Gln Lys Lys Val Leu Arg Ala Pro 20 25 30

Cys Gly Ala Pro Ser Val Thr Val Thr Lys Ser His Lys Arg Gly Met
35 40 45

Lys Gly Asp Thr Val Asn Val Arg Arg Ser Val Arg Val Lys Thr Lys 50 55 60

Asn Pro Pro His Cys Leu Glu Ile Thr Pro Pro Ser Ser Glu Lys Leu 65 70 75 80

Val Ser Val Met Arg Leu Ser Asp Leu Ser Thr Glu Asp Asp Ser 85 90 95

Gly His Cys Lys Met Asn Arg Tyr Asp Lys Lys Ile Asp Ser Leu Met 100 105 110

Asn Ala Val Gly Cys Leu Lys Ser Glu Val Lys Met Gln Lys Gly Glu 115 120 125

Arg Gln Met Ala Lys Arg Phe Leu Glu Glu Arg Lys Glu Glu Leu Glu 130 135 140

Glu Val Ala His Glu Leu Ala Glu Thr Glu His Glu Asn Thr Val Leu 145 150 155 160

Arg His Asn Ile Glu Arg Met Lys Glu Glu Lys Asp Phe Thr Ile Leu

165 170 175

Gln Lys Lys His Leu Gln Gln Glu Lys Glu Cys Leu Met Ser Lys Leu 180 185 190

Val Glu Ala Glu Met Asp Gly Ala Ala Ala Ala Lys Gln Val Met Ala 195 200 205

Leu Lys Asp Thr Ile Gly Lys Leu Lys Thr Glu Lys Gln Met Thr Cys 210 220

Thr Asp Ile Asn Thr Leu Thr Arg Gln Lys Glu Leu Leu Leu Gln Lys 225 230 235 240

Leu Ser Thr Phe Glu Glu Thr Asn Arg Thr Leu Arg Asp Leu Leu Arg 245 250 255

Glu Gln His Cys Lys Glu Asp Ser Glu Arg Leu Met Glu Gln Gln Gly 260 265 270

Ala Leu Leu Lys Arg Leu Ala Glu Ala Asp Ser Glu Lys Ala Arg Leu 275 280 285

Leu Leu Leu Gln Asp Lys Asp Lys Glu Val Glu Glu Leu Leu Gln 290 . 295 300

Glu Ile Gln Cys Glu Lys Ala Gln Ala Lys Thr Ala Ser Glu Leu Ser 305 310 315 320

Lys Ser Met Glu Ser Met Arg Gly His Leu Gln Ala Gln Leu Arg Ser 325 330 335

Lys Glu Ala Glu Asn Ser Arg Leu Cys Met Gln Ile Lys Asn Leu Glu 340 345 350

Arg Ser Gly Asn Gln His Lys Ala Glu Val Glu Ala Ile Met Glu Gln 355 360 365

Leu Lys Glu Leu Lys Gln Lys Gly Asp Arg Asp Lys Glu Ser Leu Lys 370 375 380

Lys Ala Ile Arg Ala Gln Lys Glu Arg Ala Glu Lys Ser Glu Glu Tyr 385 390 395 400

Ala Glu Gln Leu His Val Gln Leu Ala Asp Lys Asp Leu Tyr Val Ala 405 410 415

Glu Ala Leu Ser Thr Leu Glu Ser Trp Arg Ser Arg Tyr Asn Gln Val 420 425 430

Val Lys Glu Lys Gly Asp Leu Glu Leu Glu Ile Ile Val Leu Asn Asp 435 440 445

Arg Val Thr Asp Leu Val Asn Gln Gln Gln Thr Leu Glu Glu Lys Met 450 455 460

Arg Glu Asp Arg Asp Ser Leu Val Glu Arg Leu His Arg Gln Thr Ala 465 470 475 480

Glu Tyr Ser Ala Phe Lys Leu Glu Asn Glu Arg Leu Lys Ala Ser Phe 485 490 495

Ala Pro Met Glu Asp Lys Leu Asn Gln Ala His Leu Glu Val Gln Gln 500 505 510

Leu Lys Ala Ser Val Lys Asn Tyr Glu Gly Met Ile Asp Asn Tyr Lys 515 520 525

Ser Gln Val Met Lys Thr Arg Leu Glu Ala Asp Glu Val Ala Ala Gln 530 535 540

Leu Glu Arg Cys Asp Lys Glu Asn Lys Ile Leu Lys Asp Glu Met Asn 545 550 555 560

Lys Glu Ile Glu Ala Ala Arg Arg Gln Phe Gln Ser Gln Leu Ala Asp 565 570 575

Leu Gln Gln Leu Pro Asp Ile Leu Lys Ile Thr Glu Ala Lys Leu Ala 580 585 590

Glu Cys Gln Asp Gln Leu Gln Gly Tyr Glu Arg Lys Asn Ile Asp Leu 595 600 605

Thr Ala Ile Ile Ser Asp Leu Arg Ser Arg Val Arg Asp Trp Gln Lys 610 620

Gly Ser His Glu Leu Thr Arg Ala Gly Ala Arg Ile Pro Arg 625 630 635

<210> 2611

<211> 197

<212> PRT

<213> Homo sapiens

<400> 2611

Met Thr Leu Leu Pro Gly Leu Leu Phe Leu Thr Trp Leu His Thr Cys
1 10 15

Leu Ala His His Asp Pro Ser Leu Arg Gly His Pro His Ser His Gly 20 25 30

Thr Pro His Cys Tyr Ser Ala Glu Glu Leu Pro Leu Gly Gln Ala Pro 35 40 45

Pro His Leu Leu Ala Arg Gly Ala Lys Trp Gly Gln Ala Leu Pro Val 50 60

Ala Leu Val Ser Ser Leu Glu Ala Ala Ser His Arg Gly Arg His Glu 65 70 75 80

Arg Pro Ser Ala Thr Thr Gln Cys Pro Val Leu Arg Pro Glu Glu Val 85 90 95

Leu Glu Ala Asp Thr His Gln Arg Ser Ile Ser Pro Trp Arg Tyr Arg
100 105 110

Val Asp Thr Asp Glu Asp Arg Tyr Pro Gln Lys Leu Ala Phe Ala Glu 115 120 125

Cys Leu Cys Arg Gly Cys Ile Asp Ala Arg Thr Gly Arg Glu Thr Ala 130 135 140

Ala Leu Asn Ser Val Arg Leu Leu Gln Ser Leu Leu Val Leu Arg Arg 145 150 155 160

Arg Pro Cys Ser Arg Asp Gly Ser Gly Leu Pro Thr Pro Gly Ala Phe 165 170 175

Ala Phe His Thr Glu Phe Ile His Val Pro Val Gly Cys Thr Cys Val 180 185 190

Leu Pro Arg Ser Val 195

<210> 2612

<211> 570

<212> PRT

<213> Homo sapiens

<400> 2612

Met Asn Val Val Phe Ala Val Lys Gln Tyr Ile Ser Lys Met Ile Glu
1 5 10 15

Asp Ser Gly Pro Gly Met Lys Val Leu Leu Met Asp Lys Glu Thr Thr 20 25 30

Gly Ile Val Ser Met Val Tyr Thr Gln Ser Glu Ile Leu Gln Lys Glu 35 40 45

Val Tyr Leu Phe Glu Arg Ile Asp Ser Gln Asn Arg Glu Ile Met Lys 50 55 60

His Leu Lys Ala Ile Cys Phe Leu Arg Pro Thr Lys Glu Asn Val Asp 65 70 75 80

Tyr Ile Ile Gln Glu Leu Arg Arg Pro Lys Tyr Thr Ile Tyr Phe Ile 85 90 95

Tyr Phe Ser Asn Val Ile Ser Lys Ser Asp Val Lys Ser Leu Ala Glu 100 105 110

Ala Asp Glu Gln Glu Val Val Ala Glu Val Gln Glu Phe Tyr Gly Asp 115 120 125

Tyr Ile Ala Val Asn Pro His Leu Phe Ser Leu Asn Ile Leu Gly Cys 130 135 140

Cys Gln Gly Arg Asn Trp Asp Pro Ala Gln Leu Ser Arg Thr Thr Gln 145 150 155 160

Gly Leu Thr Ala Leu Leu Ser Leu Lys Lys Cys Pro Met Ile Arg 165 170 175

Tyr Gln Leu Ser Ser Glu Ala Ala Lys Arg Leu Ala Glu Cys Val Lys 180 185 190

Gln Val Ile Thr Lys Glu Tyr Glu Leu Phe Glu Phe Arg Arg Thr Glu 195 200 205

Val Pro Pro Leu Leu Leu Ile Leu Asp Arg Cys Asp Asp Ala Ile Thr 210 215 220

Pro Leu Leu Asn Gln Trp Thr Tyr Gln Ala Met Val His Glu Leu Leu 225 230 235 240

Gly Ile Asn Asn Asn Arg Ile Asp Leu Ser Arg Val Pro Gly Ile Ser 245 250 255

- Lys Asp Leu Arg Glu Val Val Leu Ser Ala Glu Asn Asp Glu Phe Tyr 260 265 270
- Ala Asn Asn Met Tyr Leu Asn Phe Ala Glu Ile Gly Ser Asn Ile Lys 275 280 285
- Asn Leu Met Glu Asp Phe Gln Lys Lys Lys Pro Lys Glu Gln Gln Lys 290 295 300
- Leu Glu Ser Ile Ala Asp Met Lys Ala Phe Val Glu Asn Tyr Pro Gln 305 310 315 320
- Phe Lys Lys Met Ser Gly Thr Val Ser Lys His Val Thr Val Val Gly 325 330 335
- Glu Leu Ser Arg Leu Val Ser Glu Arg Asn Leu Leu Glu Val Ser Glu 340 345 350
- Val Glu Glu Leu Ala Cys Gln Asn Asp His Ser Ser Ala Leu Gln 355 360 365
- Asn Ile Lys Arg Leu Leu Gln Asn Pro Lys Val Thr Glu Phe Asp Ala 370 375 380
 - Ala Arg Leu Val Met Leu Tyr Ala Leu His Tyr Glu Arg His Ser Ser 385 390 395 400
 - Asn Ser Leu Pro Gly Leu Met Met Asp Leu Arg Asn Lys Gly Val Ser 405 410 415
 - Glu Lys Tyr Arg Lys Leu Val Ser Ala Val Val Glu Tyr Gly Gly Lys 420 425 430
 - Arg Val Arg Gly Ser Asp Leu Phe Ser Pro Lys Asp Ala Val Ala Ile 435 440 445
 - Thr Lys Gln Phe Leu Lys Gly Leu Lys Gly Val Glu Asn Val Tyr Thr 450 455 460
 - Gln His Gln Pro Phe Leu His Glu Thr Leu Asp His Leu Ile Lys Gly
 465 470 475 480

Arg Leu Lys Glu Asn Leu Tyr Pro Tyr Leu Gly Pro Ser Thr Leu Arg
485 490 495

Asp Arg Pro Gln Asp Ile Ile Val Phe Val Ile Gly Gly Ala Thr Tyr 500 505 510

Glu Glu Ala Leu Thr Val Tyr Asn Leu Asn Arg Thr Thr Pro Gly Val 515 520 525

Arg Ile Val Leu Gly Gly Thr Thr Val His Asn Thr Lys Ser Phe Leu 530 535 540

Glu Glu Val Leu Ala Ser Gly Leu His Ser Arg Ser Lys Glu Ser Ser 545 550 555 560

Gln Val Thr Ser Arg Ser Ala Ser Arg Arg 565 570

<210> 2613

<211> 474

<212> PRT

<213> Homo sapiens

<400> 2613

Met Thr Ile Leu Thr Tyr Pro Phe Lys Asn Leu Pro Thr Ala Ser Lys
1 10 15

Trp Ala Leu Arg Phe Ser Ile Arg Pro Leu Ser Cys Ser Ser Gln Leu 20 25 30

Arg Ala Ala Pro Ala Val Gln Thr Lys Thr Lys Lys Thr Leu Ala Lys
35 40 45

Pro Asn Ile Arg Asn Val Val Val Asp Gly Val Arg Thr Pro Phe 50 55 60

Leu Leu Ser Gly Thr Ser Tyr Lys Asp Leu Met Pro His Asp Leu Ala 65 70 75 80

Arg Ala Ala Leu Thr Gly Leu Leu His Arg Thr Ser Val Pro Lys Glu 85 90 95

Val Val Asp Tyr Ile Ile Phe Gly Thr Val Ile Gln Glu Val Lys Thr
100 105 110

Ser Asn Val Ala Arg Glu Ala Ala Leu Gly Ala Gly Phe Ser Asp Lys 115 120 125

Thr Pro Ala His Thr Val Thr Met Ala Cys Ile Ser Ala Asn Gln Ala 130 135 140

Met Thr Thr Gly Val Gly Leu Ile Ala Ser Gly Gln Cys Asp Val Ile 145 150 155 160

Val Ala Gly Gly Val Glu Leu Met Ser Asp Val Pro Ile Arg His Ser 165 170 175

Arg Lys Met Arg Lys Leu Met Leu Asp Leu Asn Lys Ala Lys Ser Met
180 185 190

Gly Gln Arg Leu Ser Leu Ile Ser Lys Phe Arg Phe Asn Phe Leu Ala 195 200 205

Pro Glu Leu Pro Ala Val Ser Glu Phe Ser Thr Ser Glu Thr Met Gly 210 215 220

His Ser Ala Asp Arg Leu Ala Ala Ala Phe Ala Val Ser Arg Leu Glu 225 230 235 240

Gln Asp Glu Tyr Ala Leu Arg Ser His Ser Leu Ala Lys Lys Ala Gln 245 250 255

Asp Glu Gly Leu Leu Ser Asp Val Val Pro Phe Lys Val Pro Gly Lys 260 265 270

Asp Thr Val Thr Lys Asp Asn Gly Ile Arg Pro Ser Ser Leu Glu Gln 275 280 285

Met Ala Lys Leu Lys Pro Ala Phe Ile Lys Pro Tyr Gly Thr Val Thr 290 295 300

Ala Ala Asn Ser Ser Phe Leu Thr Asp Gly Ala Ser Ala Met Leu Ile 305 310 315 320

Met Ala Glu Glu Lys Ala Leu Ala Met Gly Tyr Lys Pro Lys Ala Tyr 325 330 335

Leu Arg Asp Phe Met Tyr Val Ser Gln Asp Pro Lys Asp Gln Leu Leu 340 345 350

Leu Gly Pro Thr Tyr Ala Thr Pro Lys Val Leu Glu Lys Ala Gly Leu 355 360 365

Thr Met Asn Asp Ile Asp Ala Phe Glu Phe His Glu Ala Phe Ser Gly 370 375 380

Gln Ile Leu Ala Asn Phe Lys Ala Met Asp Ser Asp Trp Phe Ala Glu 385 390 395 400

Asn Tyr Met Gly Arg Lys Thr Lys Val Gly Leu Pro Pro Leu Glu Lys
405 . 410 415

Phe Asn Asn Trp Gly Gly Ser Leu Ser Leu Gly His Pro Phe Gly Ala
420 425 430

Thr Gly Cys Arg Leu Val Met Ala Ala Ala Asn Arg Leu Arg Lys Glu
435 440 445

Gly Gly Gln Tyr Gly Leu Val Ala Ala Cys Ala Ala Gly Gly Gln Gly 450 455 460

His Ala Met Ile Val Glu Ala Tyr Pro Lys
465 470

<210> 2614

<211> 793

<212> PRT

<213> Homo sapiens

<400> 2614

Met Glu Ser Arg Ala Glu Gly Gly Ser Pro Ala Val Phe Asp Trp Phe 1 5 10 15

Phe Glu Ala Ala Cys Pro Ala Ser Leu Gln Glu Asp Pro Pro Ile Leu 20 25 30

Arg Gln Phe Pro Pro Asp Phe Arg Asp Gln Glu Ala Met Gln Met Val

Pro Lys Phe Cys Phe Pro Phe Asp Val Glu Arg Glu Pro Pro Ser Pro 50 55 60

Ala Val Gln His Phe Thr Phe Ala Leu Thr Asp Leu Ala Gly Asn Arg
65 70 75 80

Arg Phe Gly Phe Cys Arg Leu Arg Ala Gly Thr Gln Ser Cys Leu Cys 85 90 95

Ile Leu Ser His Leu Pro Trp Phe Glu Val Phe Tyr Lys Leu Leu Asn

100 105 110

Thr Val Gly Asp Leu Leu Ala Gln Asp Gln Val Thr Glu Ala Glu Glu
115 120 125

Leu Leu Gln Asn Leu Phe Gln Gln Ser Leu Ser Gly Pro Gln Ala Ser 130 135 140

Val Gly Leu Glu Leu Gly Ser Gly Val Thr Val Ser Ser Gly Gln Gly 145 150 155 160

Ile Pro Pro Pro Thr Arg Gly Asn Ser Lys Pro Leu Ser Cys Phe Val
165 170 175

Ala Pro Asp Ser Gly Arg Leu Pro Ser Ile Pro Glu Asn Arg Asn Leu 180 185 190

Thr Glu Leu Val Val Ala Val Thr Asp Glu Asn Ile Val Gly Leu Phe 195 200 205

Ala Ala Leu Leu Ala Glu Arg Arg Val Leu Leu Thr Ala Ser Lys Leu 210 215 220

Ser Thr Leu Thr Ser Cys Val His Ala Ser Cys Ala Leu Leu Tyr Pro 225 230 235 240

Met Arg Trp Glu His Val Leu Ile Pro Thr Leu Pro Pro His Leu Leu 245 250 255

Asp Tyr Cys Cys Ala Pro Met Pro Tyr Leu Ile Gly Val His Ala Ser 260 265 270

Leu Ala Glu Arg Val Arg Glu Lys Ala Leu Glu Asp Val Val Leu 275 280 285

Asn Val Asp Ala Asn Thr Leu Glu Thr Thr Phe Asn Asp Val Gln Ala 290 295 300

Leu Pro Pro Asp Val Val Ser Leu Leu Arg Leu Arg Leu Arg Lys Val 305 310 315 320

Ala Leu Ala Pro Gly Glu Gly Val Ser Arg Leu Phe Leu Lys Ala Gln 325 330 335

Ala Leu Leu Phe Gly Gly Tyr Arg Asp Ala Leu Val Cys Ser Pro Gly 340 345 350

Gln Pro Val Thr Phe Ser Glu Glu Val Phe Leu Ala Gln Lys Pro Gly 355 360 365

- Ala Pro Leu Gln Ala Phe His Arg Arg Ala Val His Leu Gln Leu Phe 370 375 380
- Lys Gln Phe Ile Glu Ala Arg Leu Glu Lys Leu Asn Lys Gly Glu Gly 385 390 395 400
- Phe Ser Asp Gln Phe Glu Gln Glu Ile Thr Gly Cys Gly Ala Ser Pro 405 410 415
- Gly Ala Leu Arg Ser Tyr Gln Leu Trp Ala Asp Asn Leu Lys Lys Gly
 420 425 430
- Gly Gly Ala Leu Leu His Ser Val Lys Ala Lys Thr Gln Pro Ala Val 435 440 445
- Lys Asn Met Tyr Arg Ser Ala Lys Ser Gly Leu Lys Gly Val Gln Ser 450 455 460
- Leu Leu Met Tyr Lys Asp Gly Asp Ser Val Leu Gln Arg Gly Gly Ser 465 470 475 480
- Leu Arg Ala Pro Ala Leu Pro Ser Arg Ser Asp Arg Leu Gln Gln Arg
- Leu Pro Ile Thr Gln His Phe Gly Lys Asn Arg Pro Leu Arg Pro Ser 500 505 510
- Arg Arg Gln Leu Glu Glu Gly Thr Ser Glu Pro Pro Gly Ala Gly 515 520 525
- Thr Pro Pro Leu Ser Pro Glu Asp Glu Gly Cys Pro Trp Ala Glu Glu 530 540
- Ala Leu Asp Ser Ser Phe Leu Gly Ser Gly Glu Glu Leu Asp Leu Leu 545 550 555 560
- Ser Glu Ile Leu Asp Ser Leu Ser Met Gly Ala Lys Ser Ala Gly Ser 565 570 575
- Leu Arg Pro Ser Gln Ser Leu Asp Cys Cys His Arg Gly Asp Leu Asp 580 585 590

Ser Cys Phe Ser Leu Pro Asn Ile Leu Arg Trp Gln Pro Asp Asp Lys
595 600 605

Lys Leu Pro Glu Pro Glu Pro Gln Pro Leu Ser Leu Pro Ser Leu Gln 610 615 620

Asn Ala Ser Ser Leu Asp Ala Thr Ser Ser Ser Lys Asp Ser Arg Ser 625 630 635 640

Gln Leu Ile Pro Ser Glu Ser Asp Gln Glu Val Thr Ser Pro Ser Gln 645 650 655

Ser Ser Thr Ala Ser Ala Asp Pro Ser Ile Trp Gly Asp Pro Lys Pro 660 665 670

Ser Pro Leu Thr Glu Pro Leu Ile Leu His Leu Thr Pro Ser His Lys 675 680 685

Ala Ala Glu Asp Phe Thr Ala Gln Glu Asn Pro Thr Pro Trp Leu Ser 690 695 700

Thr Ala Pro Thr Glu Pro Ser Pro Pro Glu Ser Pro Gln Ile Leu Ala 705 710 715 720

Pro Thr Lys Pro Asn Phe Asp Ile Ala Trp Thr Ser Gln Pro Leu Asp 725 730 735

Pro Ser Ser Asp Pro Ser Ser Leu Glu Asp Pro Arg Ala Arg Pro Pro 740 745 750

Lys Ala Leu Leu Ala Glu Arg Ala His Leu Gln Pro Arg Glu Glu Pro 755 760 765

Gly Ala Leu Asn Ser Pro Ala Thr Pro Thr Ser Asn Cys Gln Lys Ser 770 775 780

Gln Pro Ser Lys Pro Ala Gln Ser Arg

<210> 2615

<211> 83

<212> PRT

<213> Homo sapiens

<400> 2615

Met Ser Phe Phe Gln Leu Leu Met Lys Arg Lys Glu Leu Ile Pro Leu

1 5 10 15

Val Val Phe Met Thr Val Ala Ala Gly Gly Ala Ser Ser Phe Ala Val 20 25 30

Tyr Ser Leu Trp Lys Thr Asp Val Ile Leu Asp Arg Lys Lys Asn Pro 35 40 45

Glu Pro Trp Glu Thr Val Asp Pro Thr Val Pro Gln Lys Leu Ile Thr 50 55 60

Ile Asn Gln Gln Trp Lys Pro Ile Glu Glu Leu Gln Asn Val Gln Arg
65 70 75 80

Val Thr Lys

<210> 2616

<211> 2413 <212> PRT

<213> Homo sapiens

<400> 2616

Met Gly Ile Ser Thr Val Ile Leu Glu Met Cys Leu Leu Trp Gly Gln 1 5 10 15

Val Leu Ser Thr Gly Gly Trp Ile Pro Arg Thr Thr Asp Tyr Ala Ser 20 25 30

Leu Ile Pro Ser Glu Val Pro Leu Asp Gln Thr Val Ala Glu Gly Ser 35 40 45

Pro Phe Pro Ser Glu Ser Thr Leu Glu Ser Thr Ala Ala Glu Gly Ser 50 55 60

Pro Ile Ser Leu Glu Ser Thr Leu Glu Ser Thr Val Ala Glu Gly Ser 65 70 75 80

Leu Ile Pro Ser Glu Ser Thr Leu Glu Ser Thr Val Ala Glu Gly Ser 85 90 95

Asp Ser Gly Leu Ala Leu Arg Leu Val Asn Gly Asp Gly Arg Cys Gln 100 105 110

Gly Arg Val Glu Ile Leu Tyr Arg Gly Ser Trp Gly Thr Val Cys Asp 115 120 125

Asp Ser Trp Asp Thr Asn Asp Ala Asn Val Val Cys Arg Gln Leu Gly 130 135 140

- Cys Gly Trp Ala Met Ser Ala Pro Gly Asn Ala Trp Phe Gly Gln Gly 145 150 155 160
- Ser Gly Pro Ile Ala Leu Asp Asp Val Arg Cys Ser Gly His Glu Ser 165 170 175
- Tyr Leu Trp Ser Cys Pro His Asn Gly Trp Leu Ser His Asn Cys Gly
 180 185 190
- His Gly Glu Asp Ala Gly Val Ile Cys Ser Ala Ala Gln Pro Gln Ser 195 200 205
- Thr Leu Arg Pro Glu Ser Trp Pro Val Arg Ile Ser Pro Pro Val Pro 210 225 220
- Thr Glu Gly Ser Glu Ser Ser Leu Ala Leu Arg Leu Val Asn Gly Gly 225 230 235 240
- Asp Arg Cys Arg Gly Arg Val Glu Val Leu Tyr Arg Gly Ser Trp Gly 245 250 255
- Thr Val Cys Asp Asp Tyr Trp Asp Thr Asn Asp Ala Asn Val Val Cys
 260 265 270
- Arg Gln Leu Gly Cys Gly Trp Ala Met Ser Ala Pro Gly Asn Ala Gln 275 280 285
- Phe Gly Gln Gly Ser Gly Pro Ile Val Leu Asp Asp Val Arg Cys Ser 290 295 300
- Gly His Glu Ser Tyr Leu Trp Ser Cys Pro His Asn Gly Trp Leu Thr 305 310 315 320
- His Asn Cys Gly His Ser Glu Asp Ala Gly Val Ile Cys Ser Ala Pro 325 330 335
- Gln Ser Arg Pro Thr Pro Ser Pro Asp Thr Trp Pro Thr Ser His Ala 340 345 350
- Ser Thr Ala Gly Pro Glu Ser Ser Leu Ala Leu Arg Leu Val Asn Gly 355 360 365

Gly Asp Arg Cys Gln Gly Arg Val Glu Val Leu Tyr Arg Gly Ser Trp 370 375 380

- Gly Thr Val Cys Asp Asp Ser Trp Asp Thr Ser Asp Ala Asn Val Val 385 390 395 400
- Cys Arg Gln Leu Gly Cys Gly Trp Ala Thr Ser Ala Pro Gly Asn Ala 405 410 415
- Arg Phe Gly Gln Gly Ser Gly Pro Ile Val Leu Asp Asp Val Arg Cys
 420 425 430
- Ser Gly Tyr Glu Ser Tyr Leu Trp Ser Cys Pro His Asn Gly Trp Leu 435 440 445
- Ser His Asn Cys Gln His Ser Glu Asp Ala Gly Val Ile Cys Ser Ala 450 455 460
- Ala His Ser Trp Ser Thr Pro Ser Pro Asp Thr Leu Pro Thr Ile Thr 465 470 475 480
- Leu Pro Ala Ser Thr Val Gly Ser Glu Ser Ser Leu Ala Leu Arg Leu 485 490 495
- Val Asn Gly Gly Asp Arg Cys Gln Gly Arg Val Glu Val Leu Tyr Arg
 500 510
- Gly Ser Trp Gly Thr Val Cys Asp Asp Ser Trp Asp Thr Asn Asp Ala 515 520 525
- Asn Val Val Cys Arg Gln Leu Gly Cys Gly Trp Ala Met Leu Ala Pro 530 535 540
- Gly Asn Ala Arg Phe Gly Gln Gly Ser Gly Pro Ile Val Leu Asp Asp 545 550 555 560
- Val Arg Cys Ser Gly Asn Glu Ser Tyr Leu Trp Ser Cys Pro His Asn 565 570 575
- Gly Trp Leu Ser His Asn Cys Gly His Ser Glu Asp Ala Gly Val Ile 580 585 590
- Cys Ser Gly Pro Glu Ser Ser Leu Ala Leu Arg Leu Val Asn Gly Gly 595 600 605
- Asp Arg Cys Gln Gly Arg Val Glu Val Leu Tyr Arg Gly Ser Trp Gly

Thr Val Cys Asp Asp Ser Trp Asp Thr Asn Asp Ala Asn Val Val Cys Arg Gln Leu Gly Cys Gly Trp Ala Met Ser Ala Pro Gly Asn Ala Arg Phe Gly Gln Gly Ser Gly Pro Ile Val Leu Asp Asp Val Arg Cys Ser Gly His Glu Ser Tyr Leu Trp Ser Cys Pro Asn Asn Gly Trp Leu Ser His Asn Cys Gly His His Glu Asp Ala Gly Val Ile Cys Ser Ala Ala Gln Ser Arg Ser Thr Pro Arg Pro Asp Thr Leu Ser Thr Ile Thr Leu Pro Pro Ser Thr Val Gly Ser Glu Ser Ser Leu Thr Leu Arg Leu Val Asn Gly Ser Asp Arg Cys Gln Gly Arg Val Glu Val Leu Tyr Arg Gly Ser Trp Gly Thr Val Cys Asp Asp Ser Trp Asp Thr Asn Asp Ala Asn Val Val Cys Arg Gln Leu Gly Cys Gly Trp Ala Met Ser Ala Pro Gly Asn Ala Arg Phe Gly Gln Gly Ser Gly Pro Ile Val Leu Asp Asp Val Arg Cys Ser Gly His Glu Ser Tyr Leu Trp Ser Cys Pro His Asn Gly Trp Leu Ser His Asn Cys Gly His His Glu Asp Ala Gly Val Ile Cys Ser Val Ser Gln Ser Arg Pro Thr Pro Ser Pro Asp Thr Trp Pro Thr

Ser His Ala Ser Thr Ala Gly Ser Glu Ser Ser Leu Ala Leu Arg Leu

Val Asn Gly Gly Asp Arg Cys Gln Gly Arg Val Glu Val Leu Tyr Arg 865 870 875 880

- Gly Ser Trp Gly Thr Val Cys Asp Asp Ser Trp Asp Thr Ser Asp Ala 885 890 895
- Asn Val Val Cys Arg Gln Leu Gly Cys Gly Trp Ala Thr Ser Ala Pro 900 905 910
- Gly Asn Ala Arg Phe Gly Gln Gly Ser Gly Pro Ile Val Leu Asp Asp 915 920 925
- Val Arg Cys Ser Gly Tyr Glu Ser Tyr Leu Trp Ser Cys Pro His Asn 930 935 940
- Gly Trp Leu Ser His Asn Cys Gln His Ser Glu Asp Ala Gly Val Ile 945 950 955 960
- Cys Ser Ala Ala His Ser Trp Ser Thr Pro Ser Pro Asp Thr Leu Pro 965 970 975
- Thr Ile Thr Leu Pro Ala Ser Thr Val Gly Ser Glu Ser Ser Leu Ala 980 985 990
- Leu Arg Leu Val Asn Gly Gly Asp Arg Cys Gln Gly Arg Val Glu Val
- Leu Tyr Gln Gly Ser Trp Gly Thr Val Cys Asp Asp Ser Trp Asp 1010 1015 1020
- Thr Asn Asp Ala Asn Val Val Cys Arg Gln Pro Gly Cys Gly Trp 1025 1030 1035
- Ala Met Ser Ala Pro Gly Asn Ala Arg Phe Gly Gln Gly Ser Gly 1040 1045 1050
- Pro Ile Val Leu Asp Asp Val Arg Cys Ser Gly His Glu Ser Tyr 1055 1060 1065
- Pro Trp Ser Cys Pro His Asn Gly Trp Leu Ser His Asn Cys Gly 1070 1075 1080
- His Ser Glu Asp Ala Gly Val Ile Cys Ser Ala Ser Gln Ser Arg 1085 1090 1095

Pro Thr Pro Ser Pro Asp Thr Trp Pro Thr Ser His Ala Ser Thr 1100 1105 Ala Gly Ser Glu Ser Ser Leu Ala Leu Arg Leu Val Asn Gly Gly 1115 Asp Arg Cys Gln Gly Arg Val Glu Val Leu Tyr Arg Gly Ser Trp 1130 1135 Gly Thr Val Cys Asp Asp Tyr Trp Asp Thr Asn Asp Ala Asn Val 1150 Val Cys Arg Gln Leu Gly Cys Gly Trp Ala Met Ser Ala Pro Gly 1165 Asn Ala Arg Phe Gly Gln Gly Ser Gly Pro Ile Val Leu Asp Asp 1175 1180 Val Arg Cys Ser Gly His Glu Ser Tyr Leu Trp Ser Cys Pro His 1190 1195 Asn Gly Trp Leu Ser His Asn Cys Gly His His Glu Asp Ala Gly 1205 1210 1215 Val Ile Cys Ser Ala Ser Gln Ser Gln Pro Thr Pro Ser Pro Asp 1220 - 1225 1230 Thr Trp Pro Thr Ser His Ala Ser Thr Ala Gly Ser Glu Ser Ser 1235 1240 1245 Leu Ala Leu Arg Leu Val Asn Gly Gly Asp Arg Cys Gln Gly Arg 1250 1260 Val Glu Val Leu Tyr Arg Gly Ser Trp Gly Thr Val Cys Asp Asp 1265 1270 1275 Tyr Trp Asp Thr Asn Asp Ala Asn Val Val Cys Arg Gln Leu Gly 1280 1285 1290 Cys Gly Trp Ala Thr Ser Ala Pro Gly Asn Ala Arg Phe Gly Gln 1295 1300 1305 Gly Ser Gly Pro Ile Val Leu Asp Asp Val Arg Cys Ser Gly His 1310 1315 1320

Glu Ser Tyr Leu Trp Ser Cys Pro His Asn Gly Trp Leu Ser His Asn Cys Gly His His Glu Asp Ala Gly Val Ile Cys Ser Ala Ser Gln Ser Gln Pro Thr Pro Ser Pro Asp Thr Trp Pro Thr Ser His Ala Ser Thr Ala Gly Ser Glu Ser Ser Leu Ala Leu Arg Leu Val Asn Gly Gly Asp Arg Cys Gln Gly Arg Val Glu Val Leu Tyr Arg Gly Ser Trp Gly Thr Val Cys Asp Asp Tyr Trp Asp Thr Asn Asp Ala Asn Val Val Cys Arg Gln Leu Gly Cys Gly Trp Ala Thr Ser Ala Pro Gly Asn Ala Arg Phe Gly Gln Gly Ser Gly Pro Ile Val Leu Asp Asp Val Arg Cys Ser Gly His Glu Ser Tyr Leu Trp Ser Cys Pro His Asn Gly Trp Leu Ser His Asn Cys Gly His His Glu Asp Ala Gly Val Ile Cys Ser Ala Ser Gln Ser Gln Pro Thr Pro Ser Pro Asp Thr Trp Pro Thr Ser Arg Ala Ser Thr Ala Gly Ser Glu Ser Thr Leu Ala Leu Arg Leu Val Asn Gly Gly Asp Arg Cys Arg Gly Arg Val Glu Val Leu Tyr Gln Gly Ser Trp Gly Thr Val

Cys Asp Asp Tyr Trp Asp Thr Asn Asp Ala Asn Val Val Cys Arg

Gln Leu Gly Cys Gly Trp Ala Met Ser Ala Pro Gly Asn Ala Gln

1550 1555 1560

Phe Gly Gln Gly Ser Gly Pro Ile Val Leu Asp Asp Val Arg Cys 1565 1570 1575

- Ser Gly His Glu Ser Tyr Leu Trp Ser Cys Pro His Asn Gly Trp 1580 1585 1590
- Leu Ser His Asn Cys Gly His His Glu Asp Ala Gly Val Ile Cys 1595 1600 1605
- Ser Ala Ala Gln Ser Gln Ser Thr Pro Arg Pro Asp Thr Trp Leu 1610 1620
- Thr Thr Asn Leu Pro Ala Leu Thr Val Gly Ser Glu Ser Ser Leu 1625 1630 1635
- Ala Leu Arg Leu Val Asn Gly Gly Asp Arg Cys Arg Gly Arg Val 1640 1645 1650
- Glu Val Leu Tyr Arg Gly Ser Trp Gly Thr Val Cys Asp Asp Ser 1655 1660 1665
- Trp Asp Thr Asn Asp Ala Asn Val Val Cys Arg Gln Leu Gly Cys 1670 1680
- Gly Trp Ala Met Ser Ala Pro Gly Asn Ala Arg Phe Gly Gln Gly 1685 1690 1695
- Ser Gly Pro Ile Val Leu Asp Asp Val Arg Cys Ser Gly Asn Glu 1700 1705 1710
- Ser Tyr Leu Trp Ser Cys Pro His Lys Gly Trp Leu Thr His Asn 1715 1720 1725
- Cys Gly His His Glu Asp Ala Gly Val Ile Cys Ser Ala Thr Gln 1730 1735 1740
- Ile Asn Ser Thr Thr Thr Asp Trp Trp His Pro Thr Thr Thr Thr 1745 1750 1755
- Thr Ala Arg Pro Ser Ser Asn Cys Gly Gly Phe Leu Phe Tyr Ala 1760 1765 1770
- Ser Gly Thr Phe Ser Ser Pro Ser Tyr Pro Ala Tyr Tyr Pro Asn 1775 1780 1785

Asn	179	Ly: 0	в Су	s Val	l Trj	p Glu 1799	Ile 5	: Glu	ı Val	. Asr	Ser 1800		у Ту	r Arg
Ile	180	Let 5	ı Gl	y Phe	e Se	r Asn 1810	Leu)	Lys	. Leu	Glu	Ala 1815		5 His	s Asn
Cys	Ser 1820	Ph€	e Asp	туг	· Val	l Glu 1825	Ile	Phe	Asp	Gly	Ser 1830		ı Asr	ı Ser
Ser	Leu 1835	Leu 5	. Let	ı Gly	' Lys	1840	Cys	Asn	Asp	Thr	Arg 1845		ı Ile	Phe
Thr	Ser 1850	Ser	Туг	Asn	Arg	Met 1855	Thr	Ile	His	Phe	Arg 1860		Asp	Ile
Ser	Phe 1865	Gln	Asn	Thr	Gly	Phe 1870	Leu	Ala	Trp	Tyr	Asn 1875		Phe	Pro
Ser	Asp 1880	Ala	Thr	Leu	Arg	Leu 1885	Val	Asn	Leu	Asn	Ser 1890		Tyr	Gly
Leu	Cys 1895	Ala	Gly	Arg	Val	Glu 1900	Ile	Tyr	His	Gly	Gly 1905	Thr	Trp	Gly
Thr	Val 1910	Сув	Asp	Asp	Ser	Trp 1915	Thr	Ile	Gln	Glu	Ala 1920	Glu	Val	Val
	1925					Gly 1930					1935			
	1940					Ser 1945		•			1950			
	1933					Ser 1960					1965			
	1970					Cys 1975					1980			
	1385					Leu 1990					1995			
Ile	Thr 2000	Arg	Pro	Asn	Thr	Asp 2005	Tyr	Ser	Cys		Gly 2010	Phe	Leu	Ser

Gln Pro Ser Gly Asp Phe Ser Ser Pro Phe Tyr Pro Gly Asn Tyr 2015 2020 Pro Asn Asn Ala Lys Cys Val Trp Asp Ile Glu Val Gln Asn Asn 2035 Tyr Arg Val Thr Val Ile Phe Arg Asp Val Gln Leu Glu Gly Gly 2050 Cys Asn Tyr Asp Tyr Ile Glu Val Phe Asp Gly Pro Tyr Arg Ser 2060 2065 Ser Pro Leu Ile Ala Arg Val Cys Asp Gly Ala Arg Gly Ser Phe 2075 2080 Thr Ser Ser Ser Asn Phe Met Ser Ile Arg Phe Ile Ser Asp His 2090 2095 2100 Ser Ile Thr Arg Arg Gly Phe Arg Ala Glu Tyr Tyr Ser Ser Pro 2105 2110 2115 Ser Asn Asp Ser Thr Asn Leu Leu Cys Leu Pro Asn His Met Gln 2120 2125 2130 Ala Ser Val Ser Arg Ser Tyr Leu Gln Ser Leu Gly Phe Ser Ala - 2135 2140 2145 Ser Asp Leu Val Ile Ser Thr Trp Asn Gly Tyr Tyr Glu Cys Arg 2150 2155 . 2160

- Pro Gln Ile Thr Pro Asn Leu Val Ile Phe Thr Ile Pro Tyr Ser 2165 2170 2175
- Gly Cys Gly Thr Phe Lys Gln Ala Asp Asn Asp Thr Ile Asp Tyr 2180 2185 2190
- Ser Asn Phe Leu Thr Ala Ala Val Ser Gly Gly Ile Ile Lys Arg 2195 2200 2205
- Arg Thr Asp Leu Arg Ile His Val Ser Cys Arg Met Leu Gln Asn 2210 2215 2220
- Thr Trp Val Asp Thr Met Tyr Ile Ala Asn Asp Thr Ile His Val 2225 2230 2235

Ala Asn Asn Thr Ile Gln Val Glu Glu Val Gln Tyr Gly Asn Phe 2240 2245 2250

- Asp Val Asn Ile Ser Phe Tyr Thr Ser Ser Ser Phe Leu Tyr Pro 2255 2260 2265
- Val Thr Ser Arg Pro Tyr Tyr Val Asp Leu Asn Gln Asp Leu Tyr 2270 2275 2280
- Val Gln Ala Glu Ile Leu His Ser Asp Ala Val Leu Thr Leu Phe 2285 2290 2295
- Val Asp Thr Cys Val Ala Ser Pro Tyr Ser Asn Asp Phe Thr Ser 2300 2305 2310
- Leu Thr Tyr Asp Leu Ile Arg Ser Gly Cys Val Arg Asp Asp Thr 2315 2320 2325
- Tyr Gly Pro Tyr Ser Ser Pro Ser Leu Arg Ile Ala Arg Phe Arg 2330 2340
- Phe Arg Ala Phe His Phe Leu Asn Arg Phe Pro Ser Val Tyr Leu 2345 2350 2355
- Arg Cys Lys Met Val Val Cys Arg Ala Tyr Asp Pro Ser Ser Arg 2360 2365 2370
- Cys Tyr Arg Gly Cys Val Leu Arg Ser Lys Arg Asp Val Gly Ser 2375 2380 2385
- Tyr Gln Glu Lys Val Asp Val Val Leu Gly Pro Ile Gln Leu Gln 2390 2395 2400
- Thr Pro Pro Arg Arg Glu Glu Glu Pro Arg 2405 2410
- <210> 2617
- <211> 143
- <212> PRT
- <213> Homo sapiens
- <400> 2617
- Met Gly Lys Cys Arg Gly Leu Arg Thr Ala Arg Lys Leu Arg Ser His

 1 10 15
- Arg Arg Asp Gln Lys Trp His Asp Lys Gln Tyr Lys Lys Ala His Leu 20 25 30

Gly Thr Ala Leu Lys Ala Asn Pro Phe Gly Gly Ala Ser His Ala Lys 35 40 45

Gly Ile Val Leu Glu Lys Val Gly Val Glu Ala Lys Gln Pro Asn Ser 50 55 60 -

Ala Ile Arg Lys Cys Val Arg Val Gln Leu Ile Lys Asn Gly Lys Lys 65 70 75 80

Ile Thr Ala Phe Val Pro Asn Asp Gly Cys Leu Asn Phe Ile Glu Glu 85 90 95

Asn Asp Glu Val Leu Val Ala Gly Phe Gly Arg Lys Gly His Ala Val 100 105 110

Gly Asp Ile Pro Gly Val Arg Phe Lys Val Val Lys Val Ala Asn Val 115 120 125

Ser Leu Leu Ala Leu Tyr Lys Gly Lys Lys Glu Arg Pro Arg Ser 130 135 140

<210> 2618

<211> 272

<212> PRT

<213> Homo sapiens

<400> 2618

Met Glu Glu Glu Ala Ile Ala Ser Leu Pro Gly Glu Glu Thr Glu Asp 1 5 10 15

Met Asp Phe Leu Ser Gly Leu Glu Leu Ala Asp Leu Leu Asp Pro Arg 20 25 30

Gln Pro Asp Trp His Leu Asp Pro Gly Leu Ser Ser Pro Gly Pro Leu 35 40 45

Ser Ser Ser Gly Gly Gly Ser Asp Ser Gly Gly Leu Trp Arg Gly Asp 50 55 60

Asp Asp Asp Glu Ala Ala Ala Glu Met Gln Arg Phe Ser Asp Leu 65 70 75 80

Leu Gln Arg Leu Leu Asn Gly Ile Gly Gly Cys Ser Ser Ser Ser Asp 85 90 95

Ser Gly Ser Ala Glu Lys Arg Arg Lys Ser Pro Gly Gly Gly
100 105 110

Gly Gly Ser Gly Asn Asp Asn Asn Gln Ala Ala Thr Lys Ser Pro 115 120 125

Arg Lys Ala Ala Ala Ala Ala Arg Leu Asn Arg Leu Lys Lys 130 135 140

Glu Tyr Val Met Gly Leu Glu Ser Arg Val Arg Gly Leu Ala Ala Glu 145 150 155 160

Asn Gln Glu Leu Arg Ala Glu Asn Arg Glu Leu Gly Lys Arg Val Gln 165 170 175

Ala Leu Gln Glu Glu Ser Arg Tyr Leu Arg Ala Val Leu Ala Asn Glu 180 185 190

Thr Gly Leu Ala Arg Leu Leu Ser Arg Leu Ser Gly Val Gly Leu Arg 195 200 205

Leu Thr Thr Ser Leu Phe Arg Asp Ser Pro Ala Gly Asp His Asp Tyr 210 215 220

Ala Leu Pro Val Gly Lys Gln Lys Gln Asp Leu Leu Glu Glu Asp Asp 225 230 235 240

Ser Ala Gly Gly Val Cys Leu His Val Asp Lys Asp Lys Val Ser Val
245 250 255

Glu Phe Cys Ser Ala Cys Ala Arg Lys Ala Ser Ser Ser Leu Lys Met 260 265 270

<210> 2619

<211> 694

<212> PRT

<213> Homo sapiens

<400> 2619

Met Lys His Leu Lys Arg Trp Trp Ser Ala Gly Gly Gly Leu Leu His 1 5 10 15

Leu Thr Leu Leu Ser Leu Ala Gly Leu Arg Val Asp Leu Asp Leu 20 25 30

Tyr Leu Leu Pro Pro Pro Thr Leu Leu Gln Asp Glu Leu Leu Phe 35 40 45 Leu Gly Gly Pro Ala Ser Ser Ala Tyr Ala Leu Ser Pro Phe Ser Ala 50 55 60

- Ser Gly Gly Trp Gly Arg Ala Gly His Leu His Pro Lys Gly Arg Glu 65 70 75 80
- Leu Asp Pro Ala Ala Pro Pro Glu Gly Gln Leu Leu Arg Glu Val Arg
- Ala Leu Gly Val Pro Phe Val Pro Arg Thr Ser Val Asp Ala Trp Leu
 100 105 110
- Val His Ser Val Ala Ala Gly Ser Ala Asp Glu Ala His Gly Leu Leu 115 120 125
- Gly Ala Ala Ala Ser Ser Thr Gly Gly Ala Gly Ala Ser Val Asp 130 135 140
- Gly Gly Ser Gln Ala Val Gln Gly Gly Gly Gly Asp Pro Arg Ala Ala 145 150 155 160
- Arg Ser Gly Pro Leu Asp Ala Gly Glu Glu Lys Ala Pro Ala Glu 165 170 175
- Pro Thr Ala Gln Val Pro Asp Ala Gly Gly Cys Ala Ser Glu Glu Asn 180 185 190
- Gly Val Leu Arg Glu Lys His Glu Ala Val Asp His Ser Ser Gln His 195 200 205
- Glu Glu Asn Glu Glu Arg Val Ser Ala Gln Lys Glu Asn Ser Leu Gln 210 215 220
- Gln Asn Asp Asp Asp Glu Asn Lys Ile Ala Glu Lys Pro Asp Trp Glu 225 230 235 240
- Ala Glu Lys Thr Thr Glu Ser Arg Asn Glu Arg His Leu Asn Gly Thr 245 250 255
- Asp Thr Ser Phe Ser Leu Glu Asp Leu Phe Gln Leu Leu Ser Ser Gln 260 265 270
- Pro Glu Asn Ser Leu Glu Gly Ile Ser Leu Gly Asp Ile Pro Leu Pro 275 280 285

Gly Ser Ile Ser Asp Gly Met Asn Ser Ser Ala His Tyr His Val Asn 290 295 300

- Phe Ser Gln Ala Ile Ser Gln Asp Val Asn Leu His Glu Ala Ile Leu 305 310 315 320
- Leu Cys Pro Asn Asn Thr Phe Arg Arg Asp Pro Thr Ala Arg Thr Ser 325 330 335
- Gln Ser Gln Glu Pro Phe Leu Gln Leu Asn Ser His Thr Thr Asn Pro 340 345 350
- Glu Gln Thr Leu Pro Gly Thr Asn Leu Thr Gly Phe Leu Ser Pro Val
- Asp Asn His Met Arg Asn Leu Thr Ser Gln Asp Leu Leu Tyr Asp Leu 370 380
- Asp Ile Asn Ile Phe Asp Glu Ile Asn Leu Met Ser Leu Ala Thr Glu 385. 390 395 400
- Asp Asn Phe Asp Pro Ile Asp Val Ser Gln Leu Phe Asp Glu Pro Asp 405 410 415
- Ser Asp Ser Gly Leu Ser Leu Asp Ser Ser His Asn Asn Thr Ser Val 420 425 430
- Ile Lys Ser Asn Ser Ser His Ser Val Cys Asp Glu Gly Ala Ile Gly
 435
 440
 445
- Tyr Cys Thr Asp His Glu Ser Ser Ser His His Asp Leu Glu Gly Ala 450 460
- Val Gly Gly Tyr Tyr Pro Glu Pro Ser Lys Leu Cys His Leu Asp Gln 465 470 475 480
- Ser Asp Ser Asp Phe His Gly Asp Leu Thr Phe Gln His Val Phe His 485 490 495
- Asn His Thr Tyr His Leu Gln Pro Thr Ala Pro Glu Ser Thr Ser Glu 500 505 510
- Pro Phe Pro Trp Pro Gly Lys Ser Gln Lys Ile Arg Ser Arg Tyr Leu 515 520 525

Glu Asp Thr Asp Arg Asn Leu Ser Arg Asp Glu Gln Arg Ala Lys Ala 530 535 540

Leu His Ile Pro Phe Ser Val Asp Glu Ile Val Gly Met Pro Val Asp 545 550 555 560

Ser Phe Asn Ser Met Leu Ser Arg Tyr Tyr Leu Thr Asp Leu Gln Val
565 570 575

Ser Leu Ile Arg Asp Ile Arg Arg Gly Lys Asn Lys Val Ala Ala , 580 585 590

Gln Asn Cys Arg Lys Arg Lys Leu Asp Ile Ile Leu Asn Leu Glu Asp 595 600 605

Asp Val Cys Asn Leu Gln Ala Lys Lys Glu Thr Leu Lys Arg Glu Gln 610 620

Ala Gln Cys Asn Lys Ala Ile Asn Ile Met Lys Gln Lys Leu His Asp 625 630 635 640

Leu Tyr His Asp Ile Phe Ser Arg Leu Arg Asp Asp Gln Gly Arg Pro 645 650 655

Val Asn Pro Asn His Tyr Ala Leu Gln Cys Thr His Asp Gly Ser Ile 660 665 670

Leu Ile Val Pro Lys Glu Leu Val Ala Ser Gly His Lys Lys Glu Thr 675 680 685

Gln Lys Gly Lys Arg Lys 690

<210> 2620

<211> 391

<212> PRT

<213> Homo sapiens

<400> 2620

Met Lys Cys Leu Val Thr Gly Gly Asn Val Lys Val Leu Gly Lys Ala 1 5 10 15

Val His Ser Leu Ser Arg Ile Gly Asp Glu Leu Tyr Leu Glu Pro Leu
20 25 30

Glu Asp Gly Leu Ser Leu Arg Thr Val Asn Ser Ser Arg Ser Ala Tyr 35 40 45

Ala Cys Phe Leu Phe Ala Pro Leu Phe Phe Gln Gln Tyr Gln Ala Ala 50 55 60

- Thr Pro Gly Gln Asp Leu Leu Arg Cys Lys Ile Leu Met Lys Ser Phe 65 70 75 80
- Leu Ser Val Phe Arg Ser Leu Ala Met Leu Glu Lys Thr Val Glu Lys 85 90 95
- Cys Cys Ile Ser Leu Asn Gly Arg Ser Ser Arg Leu Val Val Gln Leu 100 105 110
- His Cys Lys Phe Gly Val Arg Lys Thr His Asn Leu Ser Phe Gln Asp 115 120 125
- Cys Glu Ser Leu Gln Ala Val Phe Asp Pro Ala Ser Cys Pro His Met 130 135 140
- Leu Arg Ala Pro Ala Arg Val Leu Gly Glu Ala Val Leu Pro Phe Ser 145 150 155 160
- Pro Ala Leu Ala Glu Val Thr Leu Gly Ile Gly Arg Gly Arg Val 165 170 175
- Ile Leu Arg Ser Tyr His Glu Glu Glu Ala Asp Ser Thr Ala Lys Ala 180 185 190
- Met Val Thr Glu Met Cys Leu Gly Glu Glu Asp Phe Gln Gln Leu Gln 195 200 205
- Ala Gln Glu Gly Val Ala Ile Thr Phe Cys Leu Lys Glu Phe Arg Gly 210 215 220
- Leu Leu Ser Phe Ala Glu Ser Ala Asn Leu Asn Leu Ser Ile His Phe 225 230 235 240
- Asp Ala Pro Gly Arg Pro Ala Ile Phe Thr Ile Lys Asp Ser Leu Leu 245 250 255
- Asp Gly His Phe Val Leu Ala Thr Leu Ser Asp Thr Asp Ser His Ser 260 265 270
- Gln Asp Leu Gly Ser Pro Glu Arg His Gln Pro Val Pro Gln Leu Gln 275 280 285

Ala His Ser Thr Pro His Pro Asp Asp Phe Ala Asn Asp Asp Ile Asp 290 295 300

Ser Tyr Met Ile Ala Met Glu Thr Thr Ile Gly Asn Glu Gly Ser Arg 305 310 315 320

Val Leu Pro Ser Ile Ser Leu Ser Pro Gly Pro Gln Pro Pro Lys Ser 325 330 335

Pro Gly Pro His Ser Glu Glu Glu Asp Glu Ala Glu Pro Ser Thr Val

Pro Gly Thr Pro Pro Pro Lys Lys Phe Arg Ser Leu Phe Phe Gly Ser 355 360 365

Ile Leu Ala Pro Val Arg Ser Pro Gln Gly Pro Ser Pro Val Leu Ala 370 375 380

Glu Asp Ser Glu Gly Glu Gly 385 390

<210> 2621

<211> 1429

<212> PRT

<213> Homo sapiens

<400> 2621

Met Ala Gly Gly Ala Trp Gly Arg Leu Ala Cys Tyr Leu Glu Phe Leu 1 5 10 15

Lys Lys Glu Glu Leu Lys Glu Phe Gln Leu Leu Leu Ala Asn Lys Ala 20 25 30

His Ser Arg Ser Ser Ser Gly Glu Thr Pro Ala Gln Pro Glu Lys Thr 35 40 45

Ser Gly Met Glu Val Ala Ser Tyr Leu Val Ala Gln Tyr Gly Glu Gln 50 55 60

Arg Ala Trp Asp Leu Ala Leu His Thr Trp Glu Gln Met Gly Leu Arg 65 70 75 80

Ser Leu Cys Ala Gln Ala Gln Glu Gly Ala Gly His Ser Pro Ser Phe 85 90 95

Pro Tyr Ser Pro Ser Glu Pro His Leu Gly Ser Pro Ser Gln Pro Thr

100 105 110

Ser Thr Ala Val Leu Met Pro Trp Ile His Glu Leu Pro Ala Gly Cys

Thr Gln Gly Ser Glu Arg Arg Val Leu Arg Gln Leu Pro Asp Thr Ser 130 135 140

Gly Arg Arg Trp Arg Glu Ile Ser Ala Ser Leu Leu Tyr Gln Ala Leu 145 150 155 160

Pro Ser Ser Pro Asp His Glu Ser Pro Ser Gln Glu Ser Pro Asn Ala 165 170 175

Pro Thr Ser Thr Ala Val Leu Gly Ser Trp Gly Ser Pro Pro Gln Pro 180 185 190

Ser Leu Ala Pro Arg Glu Gln Glu Ala Pro Gly Thr Gln Trp Pro Leu 195 200 205

Asp Glu Thr Ser Gly Ile Tyr Tyr Thr Glu Ile Arg Glu Arg Glu Arg 210 215 220

Glu Lys Ser Glu Lys Gly Arg Pro Pro Trp Ala Ala Val Val Gly Thr 225 230 235 240

Pro Pro Gln Ala His Thr Ser Leu Gln Pro His His Pro Trp Glu 245 250 255

Pro Ser Val Arg Glu Ser Leu Cys Ser Thr Trp Pro Trp Lys Asn Glu 260 265 270

Asp Phe Asn Gln Lys Phe Thr Gln Leu Leu Leu Gln Arg Pro His 275 280 285

Pro Arg Ser Gln Asp Pro Leu Val Lys Arg Ser Trp Pro Asp Tyr Val 290 295 300

Glu Glu Asn Arg Gly His Leu Ile Glu Ile Arg Asp Leu Phe Gly Pro 305 310 315 320

Gly Leu Asp Thr Gln Glu Pro Arg Ile Val Ile Leu Gln Gly Ala Ala 325 330 335

Gly Ile Gly Lys Ser Thr Leu Ala Arg Gln Val Lys Glu Ala Trp Gly 340 345 350

Arg Gly Gln Leu Tyr Gly Asp Arg Phe Gln His Val Phe Tyr Phe Ser Cys Arg Glu Leu Ala Gln Ser Lys Val Val Ser Leu Ala Glu Leu Ile Gly Lys Asp Gly Thr Ala Thr Pro Ala Pro Ile Arg Gln Ile Leu Ser Arg Pro Glu Arg Leu Leu Phe Ile Leu Asp Gly Val Asp Glu Pro Gly Trp Val Leu Gln Glu Pro Ser Ser Glu Leu Cys Leu His Trp Ser Gln Pro Gln Pro Ala Asp Ala Leu Leu Gly Ser Leu Leu Gly Lys Thr Ile Leu Pro Glu Ala Ser Phe Leu Ile Thr Ala Arg Thr Thr Ala Leu Gln Asn Leu Ile Pro Ser Leu Glu Gln Ala Arg Trp Val Glu Val Leu Gly Phe Ser Glu Ser Ser Arg Lys Glu Tyr Phe Tyr Arg Tyr Phe Thr Asp Glu Arq Gln Ala Ile Arq Ala Phe Arg Leu Val Lys Ser Asn Lys Glu Leu Trp Ala Leu Cys Leu Val Pro Trp Val Ser Trp Leu Ala Cys Thr Cys Leu Met Gln Gln Met Lys Arg Lys Glu Lys Leu Thr Leu Thr Ser Lys Thr Thr Thr Leu Cys Leu His Tyr Leu Ala Gln Ala Leu Gln Ala Gln Pro Leu Gly Pro Gln Leu Arg Asp Leu Cys Ser Leu Ala Ala Glu Gly Ile Trp Gln Lys Lys Thr Leu Phe Ser Pro Asp Asp Leu Arg

Lys His Gly Leu Asp Gly Ala Ile Ile Ser Thr Phe Leu Lys Met Gly 595 600 605

- Ile Leu Gln Glu His Pro Ile Pro Leu Ser Tyr Ser Phe Ile His Leu 610 615 620
- Cys Phe Gln Glu Phe Phe Ala Ala Met Ser Tyr Val Leu Glu Asp Glu 625 630 . 635 640
- Lys Gly Arg Gly Lys His Ser Asn Cys Ile Ile Asp Leu Glu Lys Thr 645 650 655
- Leu Glu Ala Tyr Gly Ile His Gly Leu Phe Gly Ala Ser Thr Thr Arg
 660 665 670
- Phe Leu Leu Gly Leu Leu Ser Asp Glu Gly Glu Arg Glu Met Glu Asn 675 680 685
- Ile Phe His Cys Arg Leu Ser Gln Gly Arg Asn Leu Met Gln Trp Val 690 695 700
- Pro Ser Leu Gln Leu Leu Gln Pro His Ser Leu Glu Ser Leu His 705 710 715 720
- Cys Leu Tyr Glu Thr Arg Asn Lys Thr Phe Leu Thr Gln Val Met Ala
 725 730 735
- His Phe Glu Glu Met Gly Met Cys Val Glu Thr Asp Met Glu Leu Leu 740 745 750
- Val Cys Thr Phe Cys Ile Lys Phe Ser Arg His Val Lys Leu Gln
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- Leu Ile Glu Gly Arg Gln His Arg Ser Thr Trp Ser Pro Thr Met Val 770 775 780
- Val Leu Phe Arg Trp Val Pro Val Thr Asp Ala Tyr Trp Gln Ile Leu 785 790 795 800
- Phe Ser Val Leu Lys Val Thr Arg Asn Leu Lys Glu Leu Asp Leu Ser 805 810 815
- Gly Asn Ser Leu Ser His Ser Ala Val Lys Ser Leu Cys Lys Thr Leu 820 825 830

Arg Arg Pro Arg Cys Leu Leu Glu Thr Leu Arg Leu Ala Gly Cys Gly 835 840 845

- Leu Thr Ala Glu Asp Cys Lys Asp Leu Ala Phe Gly Leu Arg Ala Asn 850 855 860
- Gln Thr Leu Thr Glu Leu Asp Leu Ser Phe Asn Val Leu Thr Asp Ala 865 870 875 880
- Gly Ala Lys His Leu Cys Gln Arg Leu Arg Gln Pro Ser Cys Lys Leu 885 890 895
- Gln Arg Leu Gln Leu Val Ser Cys Gly Leu Thr Ser Asp Cys Cys Gln
 900 905 910
- Asp Leu Ala Ser Val Leu Ser Ala Ser Pro Ser Leu Lys Glu Leu Asp 915 920 925
- Leu Gln Gln Asn Asn Leu Asp Asp Val Gly Val Arg Leu Leu Cys Glu 930 935 940
- Gly Leu Arg His Pro Ala Cys Lys Leu Ile Arg Leu Gly Leu Asp Gln 945 950 955 960
- Thr Thr Leu Ser Asp Glu Met Arg Gln Glu Leu Arg Ala Leu Glu Gln 965 970 975

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- Glu Lys Pro Gln Leu Leu Ile Phe Ser Arg Arg Lys Pro Ser Val Met 980 985 990
- Thr Pro Thr Glu Gly Leu Asp Thr Gly Glu Met Ser Asn Ser Thr Ser 995 1000 1005
- Ser Leu Lys Arg Gln Arg Leu Gly Ser Glu Arg Ala Ala Ser His 1010 1015 1020
- Val Ala Gln Ala Asn Leu Lys Leu Leu Asp Val Ser Lys Ile Phe 1025 1030 1035
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- Val Glu Leu Leu Cys Val Pro Ser Pro Ala Ser Gln Gly Asp Leu 1055 1060 1065
- His Thr Lys Pro Leu Gly Thr Asp Asp Phe Trp Gly Pro Thr

1070 1075 1080

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- Gly Gly His Val Asp Thr Ser Leu Phe Gln Met Ala His Phe Lys 1175 1180 1185
- Glu Glu Gly Met Leu Leu Glu Lys Pro Ala Arg Val Glu Leu His 1190 1200
- His Ile Val Leu Glu Asn Pro Ser Phe Ser Pro Leu Gly Val Leu 1205 1210 1215
- Leu Lys Met Ile His Asn Ala Leu Arg Phe Ile Pro Val Thr Ser 1220 1225 1230
- Val Val Leu Leu Tyr His Arg Val His Pro Glu Glu Val Thr Phe 1235 1240 1245
- His Leu Tyr Leu Ile Pro Ser Asp Cys Ser Ile Arg Lys Glu Leu 1250 1260
- Glu Leu Cys Tyr Arg Ser Pro Gly Glu Asp Gln Leu Phe Ser Glu 1265 1270 1275
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Val Val Leu Asp Lys Leu His Gly Gln Val Leu Ser Gln Glu Gln 1355

Tyr Glu Arg Val Leu Ala Glu Asn Thr Arg Pro Ser Gln Met Arg 1370 1375

Lys Leu Phe Ser Leu Ser Gln Ser Trp Asp Arg Lys Cys Lys Asp 1390

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Gln Pro Tyr Ile Thr Asn Arg Thr Phe Met Leu Ala Lys Glu Ala Ser 50 55

Leu Ala Asp Asn Asn Thr Asp Val Arg Leu Ile Gly Glu Lys Leu Phe 65 70 75 80

His Gly Val Ser Met Ser Glu Arg Cys Tyr Leu Met Lys Gln Val Leu 85 90 95

Asn Phe Thr Leu Glu Glu Val Leu Phe Pro Gln Ser Asp Arg Phe Gln 100 105 110

Pro Tyr Met Gln Glu Val Val Pro Phe Leu Ala Arg Leu Ser Asn Arg 115 120 125

Leu Ser Thr Cys His Ile Glu Gly Asp Asp Leu His Ile Gln Arg Asn 130 135 140

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Arg Arg Asn Ile His Lys Leu Leu Asp Glu Val Phe Phe Ser Glu Lys 50 55 60

Ile Tyr Lys Leu Asn Glu Asp Met Ala Cys Ser Val Ala Gly Ile Thr 65 70 75 80

Ser Asp Ala Asn Val Leu Thr Asn Glu Leu Arg Leu Ile Ala Gln Arg 85 90 95

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Tyr Leu Leu Gln Tyr Gln Glu Pro Ile Pro Cys Glu Gln Leu Val Thr 100

Ala Leu Cys Asp Ile Lys Gln Ala Tyr Thr Gln Phe Gly Gly Lys Arg 120

Pro Phe Gly Val Ser Leu Leu Tyr Ile Gly Trp Asp Lys His Tyr Gly

Phe Gln Leu Tyr Gln Ser Asp Pro Ser Gly Asn Tyr Gly Gly Trp Lys 145

Ala Thr Cys Ile Gly Asn Asn Ser Ala Ala Ala Val Ser Met Leu Lys 170 165

Gln Asp Tyr Lys Glu Gly Glu Met Thr Leu Lys Ser Ala Leu Ala Leu 180 185

Ala Ile Lys Val Leu Asn Lys Thr Met Asp Val Ser Lys Leu Ser Ala 200 195

Glu Lys Val Glu Ile Ala Thr Leu Thr Arg Glu Asn Gly Lys Thr Val 210 215

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- Thr Phe Ala Leu Ala Ser Ser Leu Leu Asp Arg Phe Leu Ala Thr Val 65 70 75 80
- Lys Ala His Pro Lys Tyr Leu Ser Cys Ile Ala Ile Ser Cys Phe Phe 85 90 95
- Leu Ala Ala Lys Thr Val Glu Glu Asp Glu Arg Ile Pro Val Leu Lys
 100 105 110
- Val Leu Ala Arg Asp Ser Phe Cys Gly Cys Ser Ser Ser Glu Ile Leu 115 120 125
- Arg Met Glu Arg Ile Ile Leu Asp Lys Leu Asn Trp Asp Leu His Thr 130 135 140
- Ala Thr Pro Leu Asp Phe Leu His Ile Phe His Ala Ile Ala Val Ser 145 150 155 160
- Thr Arg Pro Gln Leu Leu Phe Ser Leu Pro Lys Leu Ser Pro Ser Gln
 165 170 175
- His Leu Ala Val Leu Thr Lys Gln Leu Leu His Cys Met Ala Cys Asn 180 185 190
- Gln Leu Leu Gln Phe Arg Gly Ser Met Leu Ala Leu Ala Met Val Ser 195 200 205
- Leu Glu Met Glu Lys Leu Ile Pro Asp Trp Leu Ser Leu Thr Ile Glu 210 215 220
- Leu Leu Gln Lys Ala Gln Met Asp Ser Ser Gln Leu Ile His Cys Arg 225 230 235 240
- Glu Leu Val Ala His His Leu Ser Thr Leu Gln Ser Ser Leu Pro Leu 245 250 255
- Asn Ser Val Tyr Val Tyr Arg Pro Leu Lys His Thr Leu Val Thr Cys 260 265 270
- Asp Lys Gly Val Phe Arg Leu His Pro Ser Ser Val Pro Gly Pro Asp

275 280 285

Phe Ser Lys Asp Asn Ser Lys Pro Glu Val Pro Val Arg Gly Thr Ala 290 295 300

Ala Phe Tyr His His Leu Pro Ala Ala Ser Gly Cys Lys Gln Thr Ser 305 310 315 320

Thr Lys Arg Lys Val Glu Glu Met Glu Val Asp Asp Phe Tyr Asp Gly 325 330 335

Ile Lys Arg Leu Tyr Asn Glu Asp Asn Val Ser Glu Asn Val Gly Ser 340 345 350

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Ser Gln Ile Cys Asp Gly Leu Arg Gly His Leu Met Thr Val Arg Ser 50 55 60

Ser Val Ala Ala Asp Val Ile Ser Leu Leu Leu Asn Gly Asp Gly Gly 65 70 75 80

Val Gly Arg Arg Leu Trp Ile Gly Leu Gln Leu Pro Pro Gly Cys 85 90 95

Gly Asp Pro Lys Arg Leu Gly Pro Leu Arg Gly Phe Gln Trp Val Thr 100 105 110

Gly Asp Asn Asn Thr Ser Tyr Ser Arg Trp Ala Arg Leu Asp Leu Asn 115 120 125

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- Ala Thr Val Pro Ser Glu Pro Ile Trp Glu Glu Gln Gln Cys Glu Val 145 150 155 160
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- Pro Leu Ala Val Glu Pro Gly Ala Ala Ala Ala Val Ser Ile Thr 180 185 190
- Tyr Gly Thr Pro Phe Ala Ala Arg Gly Ala Asp Phe Gln Ala Leu Pro 195 200 205
- Val Gly Ser Ser Ala Ala Val Ala Pro Leu Gly Leu Gln Leu Met Cys 210 215 220
- Thr Ala Pro Pro Gly Ala Val Gln Gly His Trp Ala Arg Glu Ala Pro 225 230 235 240
- Gly Ala Trp Asp Cys Ser Val Glu Asn Gly Gly Cys Glu His Ala Cys 245 250 255
- Asn Ala Ile Pro Gly Ala Pro Arg Cys Gln Cys Pro Ala Gly Ala Ala 260 265 270
- Leu Gln Ala Asp Gly Arg Ser Cys Thr Ala Ser Ala Thr Gln Ser Cys 275 280 285
- Asn Asp Leu Cys Glu His Phe Cys Val Pro Asn Pro Asp Gln Pro Gly 290 295 300
- Ser Tyr Ser Cys Met Cys Glu Thr Gly Tyr Arg Leu Ala Ala Asp Gln 305 310 315 320
- His Arg Cys Glu Asp Val Asp Asp Cys Ile Leu Glu Pro Ser Pro Cys 325 330 335
- Pro Gln Arg Cys Val Asn Thr Gln Gly Gly Phe Glu Cys His Cys Tyr 340 345 350

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Cys Phe Arq Ala Asn Cys Glu Tyr Gln Cys Gln Pro Leu Asn Gln Thr

Ser Tyr Leu Cys Val Cys Ala Glu Gly Phe Ala Pro Ile Pro His Glu 395 390

Pro His Arg Cys Gln Met Phe Cys Asn Gln Thr Ala Cys Pro Ala Asp 410

Cys Asp Pro Asn Thr Gln Ala Ser Cys Glu Cys Pro Glu Gly Tyr Ile 425

Leu Asp Asp Gly Phe Ile Cys Thr Asp Ile Asp Glu Cys Glu Asn Gly 435

Gly Phe Cys Ser Gly Val Cys His Asn Leu Pro Gly Thr Phe Glu Cys 450 455

Ile Cys Gly Pro Asp Ser Ala Leu Ala Arg His Ile Gly Thr Asp Cys 465 470 475

Asp Ser Gly Lys Val Asp Gly Gly Asp Ser Gly Ser Gly Glu Pro Pro 485 490

Pro Ser Pro Thr Pro Gly Ser Thr Leu Thr Pro Pro Ala Val Gly Leu 505 500

Val His Ser Gly Leu Leu Ile Gly Ile Ser Ile Ala Ser Leu Cys Leu 520 515

Val Val Ala Leu Leu Ala Leu Leu Cys His Leu Arg Lys Lys Gln Gly 530 535 540

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Glu Thr Gln Phe Ser Thr Arg Val Phe Lys Lys Gln Met Arg Gln Val 50 55 60

Lys Asn Pro Phe Gly Leu Glu Ile Thr Asn Pro Ser Ser Ala Ser Ile 70 75 80

Thr Thr Gly Ile Thr Leu Thr Thr Asp Cys Leu Glu Asp Ser Leu Leu
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Thr Cys Tyr Trp Gly Cys Ser Val Gln Lys Leu Tyr Glu Ala Leu Gln 100 105 110

Lys His Val Tyr Cys Phe Arg Ile Ser Thr Pro Gln Ala Leu Glu Asp 115 120 125

Ala Leu Tyr Ser Glu Tyr Leu Tyr Gln Glu Gln Tyr Phe Ile Lys Lys 130 135 140

Asp Ser Lys Glu Glu Ile Tyr Cys Gln Leu Pro Arg Asp Thr Lys Ile 145 150 155 160

Glu Asp Phe Gly Thr Val Pro Arg Ser Arg Tyr Pro Leu Val Ala Leu 165 170 175

Leu Thr Leu Ala Asp Glu Asp Asp Arg Glu Ile Tyr Asp Ile Ile Ser 180 185 190

Met Val Ser Val Ile His Ile Pro Asp Arg Thr Tyr Lys Leu Ser Cys 195 200 205

Arg Ile Leu Tyr Gln Tyr Leu Leu Leu Ala Gln Gly Gln Phe His Asp 210 215 220

Leu Lys Gln Leu Phe Met Ser Ala Asn Asn Asn Phe Thr Pro Ser Asn 225 230 235 240

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Asp	Cys	Val 275	Val	Cys	Gln	Asn	Gly 280	Thr	Val	Asn	Trp	Val 285	Leu	Leu	Pro		
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<212> DNA

<213> Homo sapiens

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<212> DNA

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<212> DNA

<213> Homo sapiens

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<212> DNA

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Val Phe Ile Thr Ile Leu Ile Ile Ala Leu Ile Ala Leu Ser Val Gly 55

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Cys Ser Glu His Gly Ala Thr Leu Ala Val Ile Asp Ser Glu Lys Asp 115 120

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Ala Ile Ile Ser Gly Asp Ser Pro Val Ala Thr Asn Lys Leu Asp Gln 65 70 75 80

Glu Val Gln Glu Glu Thr Gln Gly Arg Phe Arg Leu Leu Gly Asp Pro 85 90 95

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Asn Gly Ser Tyr Phe Phe Arg Met Glu Arg Gly Ser Thr Lys Tyr Ser 115 120 125

Tyr Lys Ser Pro Gln Leu Ser Val His Val Thr Asp Leu Thr His Arg 130 135 140

Pro Lys Ile Leu Ile Pro Gly Thr Leu Glu Pro Gly His Ser Lys Asn

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Phe Ser Trp Leu Ser Ala Ala Pro Thr Ser Leu Gly Pro Arg Thr Thr 180 185 190

His Ser Ser Val Leu Ile Ile Thr Pro Arg Pro Gln Asp His Gly Thr 195 200 205

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Arg Thr Ile Gln Leu Asn Val Thr Tyr Val Pro Gln Asn Pro Thr Thr 225 230 235 240

Gly Ile Phe Pro Gly Asp Gly Ser Gly Lys Gln Glu Thr Arg Ala Gly 245 250 255

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Lys Met Leu Gln Gly Ile Phe Pro Lys Ser Phe Ile His Ile Lys Glu 65 70 75 80

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Ser Gly Thr Leu Pro Lys Asp Glu Leu Lys Glu Leu Lys Gln Lys Val 145 150 155 160

Thr Ser Lys Ile Asp Tyr Gly Asn Lys Ile Leu Glu Leu Asp Leu Ile 165 170 175

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Ile Ser Leu Phe His Ala His Glu Glu Ala Thr Asp Lys Ile Thr Glu 195 200 205

Arg Ile Lys Glu Glu Met Ser Lys Asp Gln Pro Asp Tyr Ala Met Tyr 210 215 220

Ser Arg Ile Ser Ser Ser Pro Thr His Ser Leu Tyr Val Phe Val Arg 225 230 235 240

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Asp Thr Gly Ala Lys Lys Cys Thr Gln Gly Leu Arg Arg Pro Phe Gly 325 330 335

Val Ala Val Met Asp Ile Thr Asp Ile Ile Lys Gly Lys Ala Glu Ser 340 345 350

Asp Glu Glu Lys Gln His Phe Ile Pro Phe His Pro Val Thr Ala Glu 355 360 365

- Asn Asp Phe Leu His Ser Leu Leu Gly Lys Val Ile Ala Ser Lys Gly 370 375 380
- Asp Ser Gly Gly Gln Gly Leu Trp Val Thr Met Lys Met Leu Val Gly 385 390 395 400
- Asp Ile Ile Gln Ile Arg Lys Asp Tyr Pro His Leu Val Asp Arg Thr 405 410 415
- Thr Val Val Ala Arg Lys Leu Gly Phe Pro Glu Ile Ile Met Pro Gly
  420 425 430
- Asp Val Arg Asn Asp Ile Tyr Ile Thr Leu Leu Gln Gly Asp Phe Asp 435 440 445
- Lys Tyr Asn Lys Thr Thr Gln Arg Asn Val Glu Val Ile Met Cys Val 450 455 460
- Cys Ala Glu Asp Gly Lys Thr Leu Pro Asn Ala Ile Cys Val Gly Ala 465 470 475 480
- Gly Asp Lys Pro Met Asn Glu Tyr Arg Ser Val Val Tyr Tyr Gln Val 485 490 495
- Lys Gln Pro Arg Trp Met Glu Thr Val Lys Val Ala Val Pro Ile Glu 500 505 510
- Asp Met Gln Arg Ile His Leu Arg Phe Met Phe Arg His Arg Ser Ser 515 520 525
- Leu Glu Ser Lys Asp Lys Gly Glu Lys Asn Phe Ala Met Ser Tyr Val 530 540
- Lys Leu Met Lys Glu Asp Gly Thr Thr Leu His Asp Gly Phe His Asp 545 550 555 560
- Leu Val Val Leu Lys Gly Asp Ser Lys Lys Met Glu Asp Ala Ser Ala 565 570 575
- Tyr Leu Thr Leu Pro Ser Tyr Arg His His Val Glu Asn Lys Gly Ala 580 585 590
- Thr Leu Ser Arg Ser Ser Ser Ser Val Gly Gly Leu Ser Val Ser Ser 595 600. 605

Arg Asp Val Phe Ser Ile Ser Thr Leu Val Cys Ser Thr Lys Leu Thr 610 615 620

- Gln Asn Val Gly Leu Leu Gly Leu Leu Lys Trp Arg Met Lys Pro Gln 625 630 635 640
- Leu Leu Gln Glu Asn Leu Glu Lys Leu Lys Ile Val Asp Gly Glu Glu 645 650 655
- Val Val Lys Phe Leu Gln Asp Thr Leu Asp Ala Leu Phe Asn Ile Met 660 665 670
- Met Glu His Ser Gln Ser Asp Glu Tyr Asp Ile Leu Val Phe Asp Ala 675 680 685
- Leu Ile Tyr Ile Ile Gly Leu Ile Ala Asp Arg Lys Phe Gln His Phe 690 695 700
- Asn Thr Val Leu Glu Ala Tyr Ile Gln Gln His Phe Ser Ala Thr Leu 705 710 715 720
- Ala Tyr Lys Lys Leu Met Thr Val Leu Lys Thr Tyr Leu Asp Thr Ser 725 730 735
- Ser Arg Gly Glu Gln Cys Glu Pro Ile Leu Arg Thr Leu Lys Ala Leu 740 745 750
- Glu Tyr Val Phe Lys Phe Ile Val Arg Ser Arg Thr Leu Phe Ser Gln 755 760 765
- Leu Tyr Glu Gly Lys Glu Gln Met Glu Phe Glu Glu Ser Met Arg Arg 770 775 780
- Leu Phe Glu Ser Ile Asn Asn Leu Met Lys Ser Gln Tyr Lys Thr Thr 785 790 795 800
- Ile Leu Leu Gln Val Ala Ala Leu Lys Tyr Ile Pro Ser Val Leu His 805 810 815
- Asp Val Glu Met Val Phe Asp Ala Lys Leu Leu Ser Gln Leu Leu Tyr 820 825 830
- Glu Phe Tyr Thr Cys Ile Pro Pro Val Lys Leu Gln Lys Gln Lys Val 835 840 845
- Gln Ser Met Asn Glu Ile Val Gln Ser Asn Leu Phe Lys Lys Gln Glu

850 855 860

Cys Arg Asp Ile Leu Leu Pro Val Ile Thr Lys Glu Leu Lys Glu Leu 865 870 875 880

Leu Glu Gln Lys Asp Asp Met Gln His Gln Val Leu Glu Arg Lys Tyr 885 890 895

Cys Val Glu Leu Leu Asn Ser Ile Leu Glu Val Leu Ser Tyr Gln Asp 900 905 910

Ala Ala Phe Thr Tyr His His Ile Gln Glu Ile Met Val Gln Leu Leu 915 920 925

Arg Thr Val Asn Arg Thr Val Ile Thr Met Gly Arg Asp His Ile Leu 930 935 940

Ile Ser His Phe Val Ala Cys Met Thr Ala Ile Leu Asn Gln Met Gly 945 950 955 960

Asp Gln His Tyr Ser Phe Tyr Ile Glu Thr Phe Gln Thr Ser Ser Glu 965 970 975

Leu Val Asp Phe Leu Met Glu Thr Phe Ile Met Phe Lys Asp Leu Ile 980 985 990

Gly Lys Asn Val Tyr Pro Gly Asp Trp Met Ala Met Ser Met Val Gln 995 1000 1005

Asn Arg Val Phe Leu Arg Ala Ile Asn Lys Phe Ala Glu Thr Met 1010 1015 1020

Asn Gln Lys Phe Leu Glu His Thr Asn Phe Glu Phe Gln Leu Trp 1025 1030 1035

Asn Asn Tyr Phe His Leu Ala Val Ala Phe Ile Thr Gln Asp Ser 1040 1045 1050

Leu Gln Leu Glu Gln Phe Ser His Ala Lys Tyr Asn Lys Ile Leu 1055 1060 1065

Asn Lys Tyr Gly Asp Met Arg Arg Leu Ile Gly Phe Ser Ile Arg 1070 1075 1080

Asp Met Trp Tyr Lys Leu Gly Gln Asn Lys Ile Cys Phe Ile Pro 1085 1090 1095

Gly	Met 1100	Val	Gly	Pro	Ile	Leu 1105	Glu	Met	Thr	Leu	Ile 1110	Pro	Glu	Ala
Glu	Leu 1115	Arg	Lys	Ala	Thr	Ile 1120	Pro	Ile	Phe	Phe	Asp 1125	Met	Met	Leu
Cys	Glu 1130	Tyr	Gln	Arg	Ser	Gly 1135		Phe	Lys	Lys	Phe 1140	Glu	Asn	Glu
Ile	Ile 1145	Leu	Lys	Leu	Asp	His 1150	Glu	Val	Glu	Gly	Gly 1155	Arg	Gly	Asp
Glu	Gln 1160	Tyr	Met	Gln	Leu	Leu 1165		Ser	Ile	Leu	Met 1170	Glu	Сув	Ala
Ala	Glu 1175		Pro	Thr	Ile	Ala 1180		Ser	Val	Glu	Asn 1185	Phe	Val	Asn
Leu	Val 1190	_	Gly	Leu	Leu	Glu 1195		Leu	Leu	Asp	Tyr 1200	Arg	Gly	Val
Met	Thr 1205	_	Glu	Ser	Lys	Asp 1210		Arg	Met	Ser	Cys 1215		Val	Asn
Leu	Leu 1220		Phe	Tyr	Lys	Asp 1225		Asn	Arg	Glu	Glu 1230		Tyr	Ile
Arg	Tyr 1235		Tyr	Lys	Leu	Arg 1240		Leu	His	Leu	Asp 1245		Asp	Asn
Tyr											Thr 1260		Leu	Leu
Lys	Trp 1265		Asp	Glu	Gln	Cys 1270		Ser	Gln	Val	Met 1275		Thr	Gly
Gln	Gln 1280		Pro	Gln	Thr	His 1285	_	Gln	Leu	Lys	Glu 1290		Leu	Tyr
Glu	Thr 1295		Ile	Gly	Tyr	Phe 1300		Lys	Gly	Lys	Met 1305		Glu	Glu
Ala	Ile 1310		Leu	Cys	Lys	Glu 1315		Ala	Glu	Gln	Tyr 1320		Met	Glu

Ile	Phe 1325	Asp	Tyr	Glu	Leu	Leu 1330	Ser	Gln	Asn	Leu	Ile 1335	Gln	Gln	Ala
Lys	Phe 1340	Туr	Glu	Ser	Ile	Met 1345	Lys	Ile	Leu	Arg	Pro 1350	Lys	Pro	Asp
Туг	Phe 1355		Val	Gly	Tyr	Tyr 1360	Gly	Gln	Gly	Phe	Pro 1365	Ser	Phe	Leu
Arg	Asn 1370		Val	Phe	Ile	Tyr 1375	Arg	Gly	Lys	Glu	Tyr 1380	Glu	Arg	Arg
Glu	Asp 1385		Gln	Met	Gln	Leu 1390		Thr	Gln	Phe	Pro 1395	Asn	Ala	Glu
Lys	Met 1400		Thr	Thr	Ser	Ala 1405		Gly	Asp	Asp	Val 1410	Lys	Asn	Ala
Pro	Gly 1415		Tyr	Ile	Gln	Cys 1420		Thr	Val	Gln	Pro 1425		Leu	Авр
Glu	His 1430		Arg	Phe	Lys	Asn 1435		Pro	Val	Pro	Asp 1440		Ile	Ile
Asn	Phe 1445	-	Lys	Ser	Asn	Tyr 1450		Gln	Arg	Phe	His 1455		Ser	Arg
Pro	Val 1460	_	Arg	Gly	Thr	Val 1465		Pro	Glu	Asn	Glu 1470		Ala	Ser
Met	Trp 1475	Ile	Glu	Arg	Thr	Ser 1480	Phe	Val	Thr	Ala	Tyr 1485		Leu	Pro
Gly	Ile 1490		Arg	Trp	Phe	Glu 1495		Val	His	Met	Ser 1500		Thr	Thr
Ile	Ser 1505		Leu	Glu	Asn	Ala 1510		Glu	Thr	Met	Ser 1515		Ala	Asn
Glu	Lys 1520		. Leu	Met	Met	Ile 1525		Gln	Tyr	Gln	Ser 1530		Glu	Thr
Leu	Pro 1535		. Asn	Pro	Leu	Ser 1540		Leu	Leu	Asn	Gly 1545		· Val	Asp

Pr		Ala 1550	Val	Met	Gly	_	Phe 1555	Ala	Lys	Tyr	Glu	Lys 1560	Ala	Phe	Phe
Th		Glu 1565	Glu	Tyr	Val	Arg	Asp 1570	His	Pro	Glu	Asp	Gln 1575	Asp	Lys	Leu
Th		His 1580	Leu	Lys	Asp	Leu	Ile 1585	Ala	Trp	Gln	Ile	Pro 1590	Phe	Leu	Gly
Al		Gly 1595	Ile	Lys	Ile	His	Glu 1600		Arg	Val	Ser	Asp 1605	Asn	Leu	Arg
Pr	0	Phe 1610	His	Asp	Arg	Met	Glu 1615	Glu	Cys	Phe	Lys	Asn 1620	Leu	Lys	Met
ь	/S	Val 1625		Lys	Glu	Tyr	Gly 1630	Val	Arg	Glu	Met	Pro 1635	Asp	Phe	Asp
As	ъp	Arg 1640	_	Val	Gly	Arg	Pro 1645		Ser	Met	Leu	Arg 1650		Tyr	Arg
G]	ln	Met 1655		Ile	Ile		Leu 1660		Ser	Met	Asn	Ser 1665		Cys	Ser
Tł	nr	Pro 1670		Lys	Pro	Thr	Ser 1675		Ser	Phe	Asp	Leu 1680		Leu	Ala
Se	er	Pro 1685		Thr	Pro	Arg	Val 1690		Gln	Glu	Glu	Pro 1695		Ser	Pro
G:	ly	Ser 1700		Leu	Pro	Glu	Val 1705		Leu	Arg	Arg	Ser 1710		Lys	Arg
T	hr	Lys 1715	_	Ser	Ser	Val	Val 1720		Ala	Asp	Glu	Lys 1725		Ala	Ala
G	lu	Ser 1730		Leu	Lys	Arg	Leu 1735		Arg	Lys	His	Glu 1740		Met	Ser
A	qe	Thr 1745		Leu	Ser	Glu	His 1750		Ala	Ile	Pro	Leu 1755		Ala	Ser
V	al	Leu 1760		Gln	Met	Ser	Phe 1765		Ser	Gln	Ser	Met 1770		Thr	Ile
P	ro	Ala	Leu	Ala	Leu	Ser	Val	Ala	Gly	Ile	Pro	Gly	Leu	Asp	Gli

1775 1780 1785

Ala Asn Thr Ser Pro Arg Leu Ser Gln Thr Phe Leu Gln Leu Ser 1790 1795 1800

Asp Gly Asp Lys Lys Thr Leu Thr Arg Lys Lys Val Asn Gln Phe 1805 1810 1815

Phe Lys Thr Met Leu Ala Ser Lys Ser Ala Glu Glu Gly Lys Gln 1820 1825 1830

Ile Pro Asp Ser Leu Ser Thr Asp Leu 1835 1840

<210> 2930

<211> 386

<212> PRT

<213> Homo sapiens

<400> 2930

Met Glu Glu Leu Asp Ala Leu Leu Glu Glu Leu Glu Arg Ser Thr Leu 1 5 10 15

Gln Asp Ser Asp Glu Tyr Ser Asn Pro Ala Pro Leu Pro Leu Asp Gln 20 25 30

His Ser Arg Lys Glu Thr Asn Leu Asp Glu Thr Ser Glu Ile Leu Ser 35 40 45

Ile Gln Asp Asn Thr Ser Pro Leu Pro Ala Gln Leu Val Tyr Thr Thr 50 55 60

Asn Ile Gln Glu Leu Asn Val Tyr Ser Glu Ala Gln Glu Pro Lys Glu 65 70 75 80

Ser Pro Pro Pro Ser Lys Thr Ser Ala Ala Ala Gln Leu Asp Glu Leu 85 90 95

Met Ala His Leu Thr Glu Met Gln Ala Lys Val Ala Val Arg Ala Asp 100 105 110

Ala Gly Lys Lys His Leu Pro Asp Lys Gln Asp His Lys Ala Ser Leu 115 120 125

Asp Ser Met Leu Gly Gly Leu Glu Glu Leu Gln Asp Leu Gly Ile 130 135 140

Ala 145	Thr	Val	Pro	Lys	Gly 150	His	Cys	Ala	Ser	Cys 155	Gln	Lys	Pro	Ile	Ala 160
Gly	Lys	Val	Ile	His 165	Ala	Leu	Gly	Gln	Ser 170	Trp	His	Pro	Glu	His 175	Phe
Val	Cys	Thr	His 180	Cys	Lys	Glu	Glu	Ile 185	Gly	Ser	Ser	Pro	Phe 190	Phe	Glu
Arg	Ser	Gly 195	Leu	Ala	Tyr	Cys	Pro 200	Asn	Asp	туг	His	Gln 205	Leu	Phe	Ser
Pro	Arg 210	Cys	Ala	Tyr	Cys	Ala 215	Ala	Pro	Ile	Leu	Asp 220	Lys	Val	Leu	Thr
Ala 225	Met	Asn	Gln	Thr	Trp 230	His	Pro	Glu	His	Phe 235	Phe	Cys	Ser	His	Cys 240
Gly	Glu	Val	Phe	Gly 245	Ala	Glu	Gly	Phe	His 250	Glu	Lys	Asp	Lys	Lуs 255	Pro
Tyr	Cys	Arg	Lys 260	Asp	Phe	Leu	Ala	Met 265	Phe	Ser	Pro	Lys	Cys 270	Gly	Gly
Сув	Asn	Arg 275	Pro	Val	Leu	Glu	Asn 280	Tyr	Leu	Ser	Ala	Met 285	Asp	Thr	Val
Trp	His 290	Pro	Glu	Cys	Phe	Val 295		Gly	Asp	Сув	Phe 300	Thr	Ser	Phe	Ser
Thr 305	Gly	Ser	Phe		Glu 310		Asp	Gly		Pro 315		Суз	Glu	Leu	His 320
Tyr	His	His	Arg	Arg 325		Thr	Leu	Cys	His 330		Cys	Gly	Gln	Pro 335	
Thr	Gly	Arg	Cys		Ser	Ala	Met	Gly 345		Lys	Phe	His	Pro		His

Glu Gln Asn Asp Lys Thr Tyr Cys Gln Pro Cys Phe Asn Lys Leu Phe 370 375 380

Phe Val Cys Ala Phe Cys Leu Thr Gln Leu Ser Lys Gly Ile Phe Arg 355 360 365

Pro Leu 385

<210> 2931

<211> 368

<212> PRT

<213> Homo sapiens

<400> 2931

Met Val Leu Glu Val Ser Asp His Gln Val Leu Asn Asp Ala Glu Val 1 5 10 15

Ala Ala Leu Leu Glu Asn Phe Ser Ser Ser Tyr Asp Tyr Gly Glu Asn 20 25 30

Glu Ser Asp Ser Cys Cys Thr Ser Pro Pro Cys Pro Gln Asp Phe Ser 35 40 45

Leu Asn Phe Asp Arg Ala Phe Leu Pro Ala Leu Tyr Ser Leu Leu Phe 50 55 60

Leu Leu Gly Leu Leu Gly Asn Gly Ala Val Ala Ala Val Leu Leu Ser 65 70 75 80

Arg Arg Thr Ala Leu Ser Ser Thr Asp Thr Phe Leu Leu His Leu Ala 85 90 95

Val Ala Asp Thr Leu Leu Val Leu Thr Leu Pro Leu Trp Ala Val Asp 100 105 110

Ala Ala Val Gln Trp Val Phe Gly Ser Gly Leu Cys Lys Val Ala Gly
115 120 125

Ala Leu Phe Asn Ile Asn Phe Tyr Ala Gly Ala Leu Leu Leu Ala Cys 130 135 140

Ile Ser Phe Asp Arg Tyr Leu Asn Ile Val His Ala Thr Gln Leu Tyr 145 150 155 160

Arg Arg Gly Pro Pro Ala Arg Val Thr Leu Thr Cys Leu Ala Val Trp 165 170 175

Gly Leu Cys Leu Leu Phe Ala Leu Pro Asp Phe Ile Phe Leu Ser Ala 180 185 190

His His Asp Glu Arg Leu Asn Ala Thr His Cys Gln Tyr Asn Phe Pro 195 200 205

Gln Val Gly Arg Thr Ala Leu Arg Val Leu Gln Leu Val Ala Gly Phe 215

Leu Leu Pro Leu Leu Val Met Ala Tyr Cys Tyr Ala His Ile Leu Ala 230 235

Val Leu Leu Val Ser Arg Gly Gln Arg Arg Leu Arg Ala Met Arg Leu 245

Val Val Val Val Val Ala Phe Ala Leu Cys Trp Thr Pro Tyr His 260 265

Leu Val Val Leu Val Asp Ile Leu Met Asp Leu Gly Ala Leu Ala Arg 275 280

Asn Cys Gly Arg Glu Ser Arg Val Asp Val Ala Lys Ser Val Thr Ser 295 290

Gly Leu Gly Tyr Met His Cys Cys Leu Asn Pro Leu Leu Tyr Ala Phe 305 310 315

Val Gly Val Lys Phe Arg Glu Arg Met Trp Met Leu Leu Leu Arg Leu 325 330

Gly Cys Pro Asn Gln Arg Gly Leu Gln Arg Gln Pro Ser Ser Arg 340 345 350

Arq Asp Ser Ser Trp Ser Glu Thr Ser Glu Ala Ser Tyr Ser Gly Leu 360 365

<210> 2932

<211> 359 <212> PRT <213> Homo sapiens

<400> 2932

Met Ala Glu Ala Ile Thr Tyr Ala Asp Leu Arg Phe Val Lys Ala Pro

Leu Lys Lys Ser Ile Ser Ser Arg Leu Gly Gln Asp Pro Gly Ala Asp 20

Asp Asp Gly Glu Ile Thr Tyr Glu Asn Val Gln Val Pro Ala Val Leu 35 40

Gly Val Pro Ser Ser Leu Ala Ser Ser Val Leu Gly Asp Lys Ala Ala 50 55 60

- Val Lys Ser Glu Gln Pro Thr Ala Ser Trp Arg Ala Val Thr Ser Pro 65 70 75 80
- Ala Val Gly Arg Ile Leu Pro Cys Arg Thr Thr Cys Leu Arg Tyr Leu 85 90 95
- Leu Leu Gly Leu Leu Leu Thr Cys Leu Leu Gly Val Thr Ala Ile 100 105 110
- Cys Leu Gly Val Arg Tyr Leu Gln Val Ser Gln Gln Leu Gln Gln Thr 115 120 125
- Asn Arg Val Leu Glu Val Thr Asn Ser Ser Leu Arg Gln Gln Leu Arg 130 135 140
- Leu Lys Ile Thr Gln Leu Gly Gln Ser Ala Glu Asp Leu Gln Gly Ser 145 150 155 160
- Arg Arg Glu Leu Ala Gln Ser Gln Glu Ala Leu Gln Val Glu Gln Arg 165 170 175
- Ala His Gln Ala Ala Glu Gly Gln Leu Gln Ala Cys Gln Ala Asp Arg 180 185 190
- Gln Lys Thr Lys Glu Thr Leu Gln Ser Glu Glu Gln Gln Arg Arg Ala 195 200 205
- Leu Glu Gln Lys Leu Ser Asn Met Glu Asn Arg Leu Lys Pro Phe Phe 210 215 220
- Thr Cys Gly Ser Ala Asp Thr Cys Cys Pro Ser Gly Trp Ile Met His 225 230 235 240
- Gln Lys Ser Cys Phe Tyr Ile Ser Leu Thr Ser Lys Asn Trp Gln Glu 245 250 255
- Ser Gln Lys Gln Cys Glu Thr Leu Ser Ser Lys Leu Ala Thr Phe Ser 260 265 270
- Glu Ile Tyr Pro Gln Ser His Ser Tyr Tyr Phe Leu Asn Ser Leu Leu 275 280 285
- Pro Asn Gly Gly Ser Gly Asn Ser Tyr Trp Thr Gly Leu Ser Ser Asn

290 295 300

Lys Asp Trp Lys Leu Thr Asp Asp Thr Gln Arg Thr Arg Thr Tyr Ala 305 310 315 320

Gln Ser Ser Lys Cys Asn Lys Val His Lys Thr Trp Ser Trp Trp Thr 325 330 335

Leu Glu Ser Glu Ser Cys Arg Ser Ser Leu Pro Tyr Ile Cys Glu Met 340 345 350

Thr Ala Phe Arg Phe Pro Asp 355

<210> 2933

<211> 266

<212> PRT

<213> Homo sapiens

<400> 2933

Met Arg Val Thr Leu Ala Thr Ile Ala Trp Met Val Ser Phe Val Ser 1 5 10 15

Asn Tyr Ser His Thr Ala Asn Ile Leu Pro Asp Ile Glu Asn Glu Asp 20 25 30

Phe Ile Lys Asp Cys Val Arg Ile His Asn Lys Phe Arg Ser Glu Val

Lys Pro Thr Ala Ser Asp Met Leu Tyr Met Thr Trp Asp Pro Ala Leu 50 55 60

Ala Gln Ile Ala Lys Ala Trp Ala Ser Asn Cys Gln Phe Ser His Asn 65 70 75 80

Thr Arg Leu Lys Pro Pro His Lys Leu His Pro Asn Phe Thr Ser Leu 85 90 95

Gly Glu Asn Ile Trp Thr Gly Ser Val Pro Ile Phe Ser Val Ser Ser 100 105 110

Ala Ile Thr Asn Trp Tyr Asp Glu Ile Gln Asp Tyr Asp Phe Lys Thr 115 120 125

Arg Ile Cys Lys Lys Val Cys Gly His Tyr Thr Gln Val Val Trp Ala 130 135 140

Asp Ser Tyr Lys Val Gly Cys Ala Val Gln Phe Cys Pro Lys Val Ser 145 150 155 160

Gly Phe Asp Ala Leu Ser Asn Gly Ala His Phe Ile Cys Asn Tyr Gly 165 170 175

Pro Gly Gly Asn Tyr Pro Thr Trp Pro Tyr Lys Arg Gly Ala Thr Cys 180 185 190

Ser Ala Cys Pro Asn Asn Asp Lys Cys Leu Asp Asn Leu Cys Val Asn 195 200 205

Arg Gln Arg Asp Gln Val Lys Arg Tyr Tyr Ser Val Val Tyr Pro Gly
210 215 220

Trp Pro Ile Tyr Pro Arg Asn Arg Tyr Thr Ser Leu Phe Leu Ile Val 225 230 235 240

Asn Ser Val Ile Leu Ile Leu Ser Val Ile Ile Thr Ile Leu Val Gln 245 250 255

Leu Lys Tyr Pro Asn Leu Val Leu Leu Asp

<210> 2934

<211> 1429

<212> PRT

<213> Homo sapiens

<400> 2934

Met Ala Gly Gly Ala Trp Gly Arg Leu Ala Cys Tyr Leu Glu Phe Leu 1 5 10 15

Lys Lys Glu Glu Leu Lys Glu Phe Gln Leu Leu Leu Ala Asn Lys Ala 20 25 30

His Ser Arg Ser Ser Ser Gly Glu Thr Pro Ala Gln Pro Glu Lys Thr 35 40 45

Ser Gly Met Glu Val Ala Ser Tyr Leu Val Ala Gln Tyr Gly Glu Gln 50 55 60

Arg Ala Trp Asp Leu Ala Leu His Thr Trp Glu Gln Met Gly Leu Arg 65 70 75 80

Ser Leu Cys Ala Gln Ala Gln Glu Gly Ala Gly His Ser Pro Ser Phe

85 90 95

Pro Tyr Ser Pro Ser Glu Pro His Leu Gly Ser Pro Ser Gln Pro Thr 100 105 110

Ser Thr Ala Val Leu Met Pro Trp Ile His Glu Leu Pro Ala Gly Cys 115 120 125

Thr Gln Gly Ser Glu Arg Arg Val Leu Arg Gln Leu Pro Asp Thr Ser 130 135 140

Gly Arg Arg Trp Arg Glu Ile Ser Ala Ser Leu Leu Tyr Gln Ala Leu 145 150 155 160

Pro Ser Ser Pro Asp His Glu Ser Pro Ser Gln Glu Ser Pro Asn Ala 165 170 175

Pro Thr Ser Thr Ala Val Leu Gly Ser Trp Gly Ser Pro Pro Gln Pro 180 185 190

Ser Leu Ala Pro Arg Glu Gln Glu Ala Pro Gly Thr Gln Trp Pro Leu 195 200 205

Asp Glu Thr Ser Gly Ile Tyr Tyr Thr Glu Ile Arg Glu Arg Glu Arg 210 215 220

Glu Lys Ser Glu Lys Gly Arg Pro Pro Trp Ala Ala Val Val Gly Thr 225 230 235 240

Pro Pro Gln Ala His Thr Ser Leu Gln Pro His His His Pro Trp Glu 245 250 255

Pro Ser Val Arg Glu Ser Leu Cys Ser Thr Trp Pro Trp Lys Asn Glu 260 265 270

Asp Phe Asn Gln Lys Phe Thr Gln Leu Leu Leu Gln Arg Pro His 275 280 285

Pro Arg Ser Gln Asp Pro Leu Val Lys Arg Ser Trp Pro Asp Tyr Val 290 295 300

Glu Glu Asn Arg Gly His Leu Ile Glu Ile Arg Asp Leu Phe Gly Pro 305 310 315 320

Gly Leu Asp Thr Gln Glu Pro Arg Ile Val Ile Leu Gln Gly Ala Ala 325 330 335

Gly Ile Gly Lys Ser Thr Leu Ala Arg Gln Val Lys Glu Ala Trp Gly Arg Gly Gln Leu Tyr Gly Asp Arg Phe Gln His Val Phe Tyr Phe Ser Cys Arg Glu Leu Ala Gln Ser Lys Val Val Ser Leu Ala Glu Leu Ile Gly Lys Asp Gly Thr Ala Thr Pro Ala Pro Ile Arg Gln Ile Leu Ser . Arg Pro Glu Arg Leu Leu Phe Ile Leu Asp Gly Val Asp Glu Pro Gly Trp Val Leu Gln Glu Pro Ser Ser Glu Leu Cys Leu His Trp Ser Gln Pro Gln Pro Ala Asp Ala Leu Leu Gly Ser Leu Leu Gly Lys Thr Ile Leu Pro Glu Ala Ser Phe Leu Ile Thr Ala Arg Thr Thr Ala Leu Gln Asn Leu Ile Pro Ser Leu Glu Gln Ala Arg Trp Val Glu Val Leu Gly Phe Ser Glu Ser Ser Arg Lys Glu Tyr Phe Tyr Arg Tyr Phe Thr Asp Glu Arg Gln Ala Ile Arg Ala Phe Arg Leu Val Lys Ser Asn Lys Glu Leu Trp Ala Leu Cys Leu Val Pro Trp Val Ser Trp Leu Ala Cys Thr Cys Leu Met Gln Gln Met Lys Arg Lys Glu Lys Leu Thr Leu Thr Ser Lys Thr Thr Thr Leu Cys Leu His Tyr Leu Ala Gln Ala Leu Gln Ala Gln Pro Leu Gly Pro Gln Leu Arg Asp Leu Cys Ser Leu Ala Ala 

- Glu Gly Ile Trp Gln Lys Lys Thr Leu Phe Ser Pro Asp Asp Leu Arg 580 585 590
- Lys His Gly Leu Asp Gly Ala Ile Ile Ser Thr Phe Leu Lys Met Gly 595 600 605
- Ile Leu Gln Glu His Pro Ile Pro Leu Ser Tyr Ser Phe Ile His Leu 610 615 620
- Cys Phe Gln Glu Phe Phe Ala Ala Met Ser Tyr Val Leu Glu Asp Glu 625 630 635 640
- Lys Gly Arg Gly Lys His Ser Asn Cys Ile Ile Asp Leu Glu Lys Thr 645 650 655
- Leu Glu Ala Tyr Gly Ile His Gly Leu Phe Gly Ala Ser Thr Thr Arg 660 665 670
- Phe Leu Leu Gly Leu Leu Ser Asp Glu Gly Glu Arg Glu Met Glu Asn 675 680 685
- Ile Phe His Cys Arg Leu Ser Gln Gly Arg Asn Leu Met Gln Trp Val 690 695 700
- Pro Ser Leu Gln Leu Leu Gln Pro His Ser Leu Glu Ser Leu His 705 710 715 720
- Cys Leu Tyr Glu Thr Arg Asn Lys Thr Phe Leu Thr Gln Val Met Ala 725 730 735
- His Phe Glu Glu Met Gly Met Cys Val Glu Thr Asp Met Glu Leu Leu 740 745 750
- Val Cys Thr Phe Cys Ile Lys Phe Ser Arg His Val Lys Lys Leu Gln 755 760 765
- Leu Ile Glu Gly Arg Gln His Arg Ser Thr Trp Ser Pro Thr Met Val 770 775 780
- Val Leu Phe Arg Trp Val Pro Val Thr Asp Ala Tyr Trp Gln Ile Leu 785 790 795 800
- Phe Ser Val Leu Lys Val Thr Arg Asn Leu Lys Glu Leu Asp Leu Ser 805 810 815

Gly Asn Ser Leu Ser His Ser Ala Val Lys Ser Leu Cys Lys Thr Leu 820 825 830

- Arg Arg Pro Arg Cys Leu Leu Glu Thr Leu Arg Leu Ala Gly Cys Gly 835 840 845
- Leu Thr Ala Glu Asp Cys Lys Asp Leu Ala Phe Gly Leu Arg Ala Asn 850 855 860
- Gln Thr Leu Thr Glu Leu Asp Leu Ser Phe Asn Val Leu Thr Asp Ala 865 870 875 880
- Gly Ala Lys His Leu Cys Gln Arg Leu Arg Gln Pro Ser Cys Lys Leu 885 890 895
- Gln Arg Leu Gln Leu Val Ser Cys Gly Leu Thr Ser Asp Cys Cys Gln 900 905 910
- Asp Leu Ala Ser Val Leu Ser Ala Ser Pro Ser Leu Lys Glu Leu Asp 915 920 925
- Leu Gln Gln Asn Asn Leu Asp Asp Val Gly Val Arg Leu Leu Cys Glu 930 935 940
- Gly Leu Arg His Pro Ala Cys Lys Leu Ile Arg Leu Gly Leu Asp Gln 945 950 955 960
- Thr Thr Leu Ser Asp Glu Met Arg Gln Glu Leu Arg Ala Leu Glu Gln 965 970 975
- Glu Lys Pro Gln Leu Leu Ile Phe Ser Arg Arg Lys Pro Ser Val Met 980 985 990
- Thr Pro Thr Glu Gly Leu Asp Thr Gly Glu Met Ser Asn Ser Thr Ser 995 1000 1005
- Ser Leu Lys Arg Gln Arg Leu Gly Ser Glu Arg Ala Ala Ser His 1010 1015 1020
- Val Ala Gln Ala Asn Leu Lys Leu Leu Asp Val Ser Lys Ile Phe 1025 1030 1035
- Pro Ile Ala Glu Ile Ala Glu Glu Ser Ser Pro Glu Val Val Pro 1040 1045 1050
- Val Glu Leu Leu Cys Val Pro Ser Pro Ala Ser Gln Gly Asp Leu

1055 1060 1065

His	Thr	Lys	Pro	Leu	Gly	Thr	Asp	Asp	Asp	Phe	Trp	Gly	Pro	Thr
	1070					1075					1080			

- Gly Pro Val Ala Thr Glu Val Val Asp Lys Glu Lys Asn Leu Tyr 1085 1090 1095
- Arg Val His Phe Pro Val Ala Gly Ser Tyr Arg Trp Pro Asn Thr 1100 1105 1110
- Gly Leu Cys Phe Val Met Arg Glu Ala Val Thr Val Glu Ile Glu 1115 1120 1125
- Phe Cys Val Trp Asp Gln Phe Leu Gly Glu Ile Asn Pro Gln His 1130 1135 1140
- Ser Trp Met Val Ala Gly Pro Leu Leu Asp Ile Lys Ala Glu Pro 1145 1150 1155
- Gly Ala Val Glu Ala Val His Leu Pro His Phe Val Ala Leu Gln 1160 1165 1170
- Gly Gly His Val Asp Thr Ser Leu Phe Gln Met Ala His Phe Lys 1175 1180 1185
- Glu Glu Gly Met Leu Leu Glu Lys Pro Ala Arg Val Glu Leu His 1190 1195 1200
- His Ile Val Leu Glu Asn Pro Ser Phe Ser Pro Leu Gly Val Leu 1205 1210 1215
- Leu Lys Met Ile His Asn Ala Leu Arg Phe Ile Pro Val Thr Ser 1220 1225 1230
- Val Val Leu Leu Tyr His Arg Val His Pro Glu Glu Val Thr Phe 1235 1240 1245
- His Leu Tyr Leu Ile Pro Ser Asp Cys Ser Ile Arg Lys Glu Leu 1250 1255 1260
- Glu Leu Cys Tyr Arg Ser Pro Gly Glu Asp Gln Leu Phe Ser Glu 1265 1270 1275
- Phe Tyr Val Gly His Leu Gly Ser Gly Ile Arg Leu Gln Val Lys 1280 1285 1290

Asp Gln Tyr Arg Glu Gln Leu 1345 
Lys Asp Glu Thr Leu Val Trp Glu Ala Leu Val Lys Pro 1305 
Thr Leu Ile Pro Pro Pro Ala Arg Ile 1315 
Ala Val 1325 
Pro Ser Pro Leu Asp Ala Pro Gln Leu Leu Leu 1335 
Asp Gln Tyr Arg Glu Gln Leu 1345 
Thr Ala Arg Val Thr Ser Val Glu 1346 
Thr Ala Arg Val Thr Arg Glu Gln Leu 1345 
Thr Ala Arg Val Thr Arg Ser Val Glu

Val Val Leu Asp Lys Leu His Gly Gln Val Leu Ser Gln Glu Gln 1355 1360 1365

Tyr Glu Arg Val Leu Ala Glu Asn Thr Arg Pro Ser Gln Met Arg 1370 1375 1380

Lys Leu Phe Ser Leu Ser Gln Ser Trp Asp Arg Lys Cys Lys Asp 1385 1390 1395

Gly Leu Tyr Gln Ala Leu Lys Glu Thr His Pro His Leu Ile Met 1400 1405 1410

Glu Leu Trp Glu Lys Gly Ser Lys Lys Gly Leu Leu Pro Leu Ser 1415 1420 1425

Ser

<210> 2935 <211> 352 <212> PRT

<213> Homo sapiens

<400> 2935

Met Glu Gly Ile Ser Ile Tyr Thr Ser Asp Asn Tyr Thr Glu Glu Met 1 5 10 15

Gly Ser Gly Asp Tyr Asp Ser Met Lys Glu Pro Cys Phe Arg Glu Glu 20 25 30

Asn Ala Asn Phe Asn Lys Ile Phe Leu Pro Thr Ile Tyr Ser Ile Ile 35 40 45

Phe Leu Thr Gly Ile Val Gly Asn Gly Leu Val Ile Leu Val Met Gly
50 60

- Tyr Gln Lys Lys Leu Arg Ser Met Thr Asp Lys Tyr Arg Leu His Leu 65 70 75 80
- Ser Val Ala Asp Leu Leu Phe Val Ile Thr Leu Pro Phe Trp Ala Val 85 90 95
- Asp Ala Val Ala Asn Trp Tyr Phe Gly Asn Phe Leu Cys Lys Ala Val 100 105 110
- His Val Ile Tyr Thr Val Asn Leu Tyr Ser Ser Val Leu Ile Leu Ala 115 120 125
- Phe Ile Ser Leu Asp Arg Tyr Leu Ala Ile Val His Ala Thr Asn Ser 130 135 140
- Gln Arg Pro Arg Lys Leu Leu Ala Glu Lys Val Val Tyr Val Gly Val 145 150 155 160
- Trp Ile Pro Ala Leu Leu Thr Ile Pro Asp Phe Ile Phe Ala Asn 165 170 · 175
- Val Ser Glu Ala Asp Asp Arg Tyr Ile Cys Asp Arg Phe Tyr Pro Asn 180 185 190
- Asp Leu Trp Val Val Val Phe Gln Phe Gln His Ile Met Val Gly Leu 195 200 205
- Ile Leu Pro Gly Ile Val Ile Leu Ser Cys Tyr Cys Ile Ile Ile Ser 210 215 220
- Lys Leu Ser His Ser Lys Gly His Gln Lys Arg Lys Ala Leu Lys Thr 225 230 235 240
- Thr Val Ile Leu Ile Leu Ala Phe Phe Ala Cys Trp Leu Pro Tyr Tyr 245 250 255
- Ile Gly Ile Ser Ile Asp Ser Phe Ile Leu Leu Glu Ile Ile Lys Gln 260 265 270
- Gly Cys Glu Phe Glu Asn Thr Val His Lys Trp Ile Ser Ile Thr Glu 275 280 285
- Ala Leu Ala Phe Phe His Cys Cys Leu Asn Pro Ile Leu Tyr Ala Phe

290 295 300

Leu Gly Ala Lys Phe Lys Thr Ser Ala Gln His Ala Leu Thr Ser Val 305 310 315 320

Ser Arg Gly Ser Ser Leu Lys Ile Leu Ser Lys Gly Lys Arg Gly Gly 325 330 335

His Ser Ser Val Ser Thr Glu Ser Glu Ser Ser Ser Phe His Ser Ser 340 345 350

<210> 2936

<211> 248

<212> PRT

<213> Homo sapiens

<400> 2936

Met Leu Ser Thr Val Gly Ser Phe Leu Gln Asp Leu Gln Asn Glu Asp 1 5 10 15

Lys Gly Ile Lys Thr Ala Ala Ile Phe Thr Ala Asp Gly Asn Met Ile 20 25 30

Ser Ala Ser Thr Leu Met Asp Ile Leu Leu Met Asn Asp Phe Lys Leu 35 40 45

Val Ile Asn Lys Ile Ala Tyr Asp Val Gln Cys Pro Lys Arg Glu Lys 50 55 60

Pro Ser Asn Glu His Thr Ala Glu Met Glu His Met Lys Ser Leu Val 65 70 75 80

His Arg Leu Phe Thr Ile Leu His Leu Glu Glu Ser Gln Lys Lys Arg 85 90 95

Glu His His Leu Leu Glu Lys Ile Asp His Leu Lys Glu Gln Leu Gln
100 105 110

Pro Leu Glu Gln Val Lys Ala Gly Ile Glu Ala His Ser Glu Ala Lys 115 120 125

Thr Ser Gly Leu Leu Trp Ala Gly Leu Ala Leu Leu Ser Ile Gln Gly 130 135 140

Gly Ala Leu Ala Trp Leu Thr Trp Trp Val Tyr Ser Trp Asp Ile Met 145 150 155 160

Glu Pro Val Thr Tyr Phe Ile Thr Phe Ala Asn Ser Met Val Phe Phe 165 170 175

Ala Tyr Phe Ile Val Thr Arg Gln Asp Tyr Thr Tyr Ser Ala Val Lys
180 185 190

Ser Arg Gln Phe Leu Gln Phe Phe His Lys Lys Ser Lys Gln Gln His 195 200 205

Phe Asp Val Gln Gln Tyr Asn Lys Leu Lys Glu Asp Leu Ala Lys Ala 210 215 220

Lys Glu Ser Leu Lys Gln Ala Arg His Ser Leu Cys Leu Gln Met Gln 225 230 235 240

Val Glu Glu Leu Asn Glu Lys Asn 245

<210> 2937

<211> 790

<212> PRT

<213> Homo sapiens

<400> 2937

Met Ala Glu Gln Val Leu Pro Gln Ala Leu Tyr Leu Ser Asn Met Arg 1 5 10 15

Lys Ala Val Lys Ile Arg Glu Arg Thr Pro Glu Asp Ile Phe Lys Pro 20 25 30

Thr Asn Gly Ile Ile His His Phe Lys Thr Met His Arg Tyr Thr Leu 35 40 45

Glu Met Phe Arg Thr Cys Gln Phe Cys Pro Gln Phe Arg Glu Ile Ile 50 55 60

His Lys Ala Leu Ile Asp Arg Asn Ile Gln Ala Thr Leu Glu Ser Gln 65 70 75 80

Lys Lys Leu Asn Trp Cys Arg Glu Val Arg Lys Leu Val Ala Leu Lys 85 90 95

Thr Asn Gly Asp Gly Asn Cys Leu Met His Ala Thr Ser Gln Tyr Met
100 105 110

Trp Gly Val Gln Asp Thr Asp Leu Val Leu Arg Lys Ala Leu Phe Ser

115 120 125

Thr Leu Lys Glu Thr Asp Thr Arg Asn Phe Lys Phe Arg Trp Gln Leu 130 135 140

Glu Ser Leu Lys Ser Gln Glu Phe Val Glu Thr Gly Leu Cys Tyr Asp 145 150 155 160

Thr Arg Asn Trp Asn Asp Glu Trp Asp Asn Leu Ile Lys Met Ala Ser 165 170 175

Thr Asp Thr Pro Met Ala Arg Ser Gly Leu Gln Tyr Asn Ser Leu Glu 180 185 190

Glu Ile His Ile Phe Val Leu Cys Asn Ile Leu Arg Arg Pro Ile Ile 195 200 205

Val Ile Ser Asp Lys Met Leu Arg Ser Leu Glu Ser Gly Ser Asn Phe 210 215 220

Ala Pro Leu Lys Val Gly Gly Ile Tyr Leu Pro Leu His Trp Pro Ala 225 230 235 240

Gln Glu Cys Tyr Arg Tyr Pro Ile Val Leu Gly Tyr Asp Ser His His
245 250 255

Phe Val Pro Leu Val Thr Leu Lys Asp Ser Gly Pro Glu Ile Arg Ala 260 265 270

Val Pro Leu Val Asn Arg Asp Arg Gly Arg Phe Glu Asp Leu Lys Val 275 280 285

His Phe Leu Thr Asp Pro Glu Asn Glu Met Lys Glu Lys Leu Leu Lys 290 295 300

Glu Tyr Leu Met Val Ile Glu Ile Pro Val Gln Gly Trp Asp His Gly 305 310 315 320

Thr Thr His Leu Ile Asn Ala Ala Lys Leu Asp Glu Ala Asn Leu Pro 325 330 335

Lys Glu Ile Asn Leu Val Asp Asp Tyr Phe Glu Leu Val Gln His Glu 340 345 350

Tyr Lys Lys Trp Gln Glu Asn Ser Glu Gln Gly Arg Arg Glu Gly His 355 360 365

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Ala Gln Asn Pro Met Glu Pro Ser Val Pro Gln Leu Ser Leu Met Asp 375 Val Lys Cys Glu Thr Pro Asn Cys Pro Phe Phe Met Ser Val Asn Thr 390 395 Gln Pro Leu Cys His Glu Cys Ser Glu Arg Arg Gln Lys Asn Gln Asn 405 Lys Leu Pro Lys Leu Asn Ser Lys Pro Gly Pro Glu Gly Leu Pro Gly 420 425 Met Ala Leu Gly Ala Ser Arg Gly Glu Ala Tyr Glu Pro Leu Ala Trp 435 440 Asn Pro Glu Glu Ser Thr Gly Gly Pro His Ser Ala Pro Pro Thr Ala 455 450 Pro Ser Pro Phe Leu Phe Ser Glu Thr Thr Ala Met Lys Cys Arg Ser 470 · 475 465 Pro Gly Cys Pro Phe Thr Leu Asn Val Gln His Asn Gly Phe Cys Glu 485 490 Arg Cys His Asn Ala Arg Gln Leu His Ala Ser His Ala Pro Asp His 500 505 Thr Arg His Leu Asp Pro Gly Lys Cys Gln Ala Cys Leu Gln Asp Val 515 520 Thr Arg Thr Phe Asn Gly Ile Cys Ser Thr Cys Phe Lys Arg Thr Thr 530 Ala Glu Ala Ser Ser Ser Leu Ser Thr Ser Leu Pro Pro Ser Cys His 545 Gln Arg Ser Lys Ser Asp Pro Ser Arg Leu Val Arg Ser Pro Ser Pro 565

His Ser Cys His Arg Ala Gly Asn Asp Ala Pro Ala Gly Cys Leu Ser

Gln Ala Ala Arg Thr Pro Gly Asp Arg Thr Gly Thr Ser Lys Cys Arg 600

580

595

PCT/US2003/012946 WO 2004/042346

Lys Ala Gly Cys Val Tyr Phe Gly Thr Pro Glu Asn Lys Gly Phe Cys 615 610

Thr Leu Cys Phe Ile Glu Tyr Arg Glu Asn Lys His Phe Ala Ala Ala 630 635

Ser Gly Lys Val Ser Pro Thr Ala Ser Arg Phe Gln Asn Thr Ile Pro 650

Cys Leu Gly Arg Glu Cys Gly Thr Leu Gly Ser Thr Met Phe Glu Gly

Tyr Cys Gln Lys Cys Phe Ile Glu Ala Gln Asn Gln Arg Phe His Glu 680

Ala Lys Arg Thr Glu Glu Gln Leu Arg Ser Ser Gln Arg Arg Asp Val

Pro Arg Thr Thr Gln Ser Thr Ser Arg Pro Lys Cys Ala Arg Ala Ser 710

Cys Lys Asn Ile Leu Ala Cys Arg Ser Glu Glu Leu Cys Met Glu Cys 730

Gln His Pro Asn Gln Arg Met Gly Pro Gly Ala His Arg Gly Glu Pro 745 740

Ala Pro Glu Asp Pro Pro Lys Gln Arg Cys Arg Ala Pro Ala Cys Asp 760

His Phe Gly Asn Ala Lys Cys Asn Gly Tyr Cys Asn Glu Cys Phe Gln 780 775

Phe Lys Gln Met Tyr Gly 790

<210> 2938 <211> 206 <212> PRT <213> Homo sapiens

<400> 2938

Met Ala Leu Pro Cys Thr Leu Gly Leu Gly Met Leu Leu Ala Leu Pro 10 15 5

Gly Ala Leu Gly Ser Gly Gly Ser Ala Glu Asp Ser Val Gly Ser Ser

20 25 30

Ser Val Thr Val Val Leu Leu Leu Leu Leu Leu Leu Leu Leu Ala Thr 35 40 45

Gly Leu Ala Leu Ala Trp Arg Arg Leu Ser Arg Asp Ser Gly Gly Tyr
50 55 60

Tyr His Pro Ala Arg Leu Gly Ala Ala Leu Trp Gly Arg Thr Arg Arg 65 70 75 80

Leu Leu Trp Ala Ser Pro Pro Gly Arg Trp Leu Gln Ala Arg Ala Glu 85 90 95

Leu Gly Ser Thr Asp Asn Asp Leu Glu Arg Gln Glu Asp Glu Gln Asp
100 105 110

Thr Asp Tyr Asp His Val Ala Asp Gly Gly Leu Gln Ala Asp Pro Gly 115 120 125

Glu Gly Glu Gln Gln Cys Gly Glu Ala Ser Ser Pro Glu Gln Val Pro 130 135 140

Val Arg Ala Glu Glu Ala Arg Asp Ser Asp Thr Glu Gly Asp Leu Val 145 150 155 160

Leu Gly Ser Pro Gly Pro Ala Ser Ala Gly Gly Ser Ala Glu Ala Leu 165 170 175

Leu Ser Asp Leu His Ala Phe Ala Gly Ser Ala Ala Trp Asp Asp Ser 180 185 190

Ala Arg Ala Ala Gly Gly Gln Gly Leu His Val Thr Ala Leu 195 200 205

<210> 2939

<211> 718

<212> PRT

<213> Homo sapiens

<400> 2939

Met Ile Val Asp Lys Leu Leu Asp Asp Ser Arg Gly Glu Gly Leu 1 5 10 15

Arg Asp Ala Ala Gly Gly Cys Gly Leu Met Thr Ser Pro Leu Asn Leu 20 25 30

Ser Tyr Phe Tyr Gly Ala Ser Pro Pro Ala Ala Ala Pro Gly Ala Cys 35 40 45

- Asp Ala Ser Cys Ser Val Leu Gly Pro Ser Ala Pro Gly Ser Pro Gly 50 55 60
- Ser Asp Ser Ser Asp Phe Ser Ser Ala Ser Ser Val Ser Ser Cys Gly 65 70 75 80
- Ala Val Glu Ser Arg Ser Arg Gly Gly Ala Arg Ala Glu Arg Gln Pro 85 90 95
- Val Glu Pro His Met Gly Val Gly Arg Gln Gln Arg Gly Pro Phe Gln 100 105 110
- Gly Val Arg Val Lys Asn Ser Val Lys Glu Leu Leu His Ile Arg 115 120 125
- Ser His Lys Gln Lys Ala Ser Gly Gln Ala Val Asp Asp Phe Lys Thr 130 135 140
- Gln Gly Val Asn Ile Glu Gln Phe Arg Glu Leu Lys Asn Thr Val Ser 145 150 155 160
- Tyr Ser Gly Lys Arg Lys Gly Pro Asp Ser Leu Ser Asp Gly Pro Ala 165 170 175
- Cys Lys Arg Pro Ala Leu Leu His Ser Gln Phe Leu Thr Pro Pro Gln 180 185 190
- Thr Pro Thr Pro Gly Glu Ser Met Glu Asp Val His Leu Asn Glu Pro 195 200 205
- Lys Gln Glu Ser Ser Ala Asp Leu Leu Gln Asn Ile Ile Asn Ile Lys 210 215 220
- Asn Glu Cys Ser Pro Val Ser Leu Asn Thr Val Gln Val Ser Trp Leu 225 230 235 240
- Asn Pro Val Val Pro Gln Ser Ser Pro Ala Glu Gln Cys Gln Asp 245 250 255
- Phe His Gly Gly Gln Val Phe Ser Pro Pro Gln Lys Cys Gln Pro Phe 260 265 270

Gln	Val	Arg 275	Gly	Ser	Gln	Gln	Met 280	Ile	Asp	Gln	Ala	Ser 285	Leu	Tyr	Gln

- Tyr Ser Pro Gln Asn Gln His Val Glu Gln Gln Pro His Tyr Thr His 290 295 300
- Lys Pro Thr Leu Glu Tyr Ser Pro Phe Pro Ile Pro Pro Gln Ser Pro 305 310 315 320
- Ala Tyr Glu Pro Asn Leu Phe Asp Gly Pro Glu Ser Gln Phe Cys Pro 325 330 335
- Asn Gln Ser Leu Val Ser Leu Leu Gly Asp Gln Arg Glu Ser Glu Asn 340 345 350
- Ile Ala Asn Pro Met Gln Thr Ser Ser Ser Val Gln Gln Asn Asp 355 360 365
- Ala His Leu His Ser Phe Ser Met Met Pro Ser Ser Ala Cys Glu Ala 370 375 380
- Met Val Gly His Glu Met Ala Ser Asp Ser Ser Asn Thr Ser Leu Pro 385 390 395 400
- Phe Ser Asn Met Gly Asn Pro Met Asn Thr Thr Gln Leu Gly Lys Ser 405 410 415
- Leu Phe Gln Trp Gln Val Glu Glu Glu Ser Lys Leu Ala Asn Ile 420 425 430
- Ser Gln Asp Gln Phe Leu Ser Lys Asp Ala Asp Gly Asp Thr Phe Leu 435 440 445
- His Ile Ala Val Ala Gln Gly Arg Arg Ala Leu Ser Tyr Val Leu Ala 450 455 460
- Arg Lys Met Asn Ala Leu His Met Leu Asp Ile Lys Glu His Asn Gly 465 470 475 480
- Gln Ser Ala Phe Gln Val Ala Val Ala Ala Asn Gln His Leu Ile Val 485 490 495
- Gln Asp Leu Val Asn Ile Gly Ala Gln Val Asn Thr Thr Asp Cys Trp
  1500 505 510
- Gly Arg Thr Pro Leu His Val Cys Ala Glu Lys Gly His Ser Gln Val

525 520 515

Leu Gln Ala Ile Gln Lys Gly Ala Val Gly Ser Asn Gln Phe Val Asp 535

Leu Glu Ala Thr Asn Tyr Asp Gly Leu Thr Pro Leu His Cys Ala Val 550

Ile Ala His Asn Ala Val Val His Glu Leu Gln Arg Asn Gln Gln Pro 570

His Ser Pro Glu Val Gln Glu Leu Leu Leu Lys Asn Lys Ser Leu Val

Asp Thr Ile Lys Cys Leu Ile Gln Met Gly Ala Ala Val Glu Ala Lys

Asp Arg Lys Ser Gly Arg Thr Ala Leu His Leu Ala Ala Glu Glu Ala 610 615

Asn Leu Glu Leu Ile Arg Leu Phe Leu Glu Leu Pro Ser Cys Leu Ser 630

Phe Val Asn Ala Lys Ala Tyr Asn Gly Asn Thr Ala Leu His Val Ala 650 645

Ala Ser Leu Gln Tyr Arg Leu Thr Gln Leu Asp Ala Val Arg Leu Leu 665 660

Met Arg Lys Gly Ala Asp Pro Ser Thr Arg Asn Leu Glu Asn Glu Gln 680 675

Pro Val His Leu Val Pro Asp Gly Pro Val Gly Glu Gln Ile Arg Arg 695

Ile Leu Lys Gly Lys Ser Ile Gln Gln Arg Ala Pro Pro Tyr 710 715

<210> 2940 <211> 247

<212> PRT

<213> Homo sapiens

<400> 2940

Met Gln Pro Ile Leu Leu Leu Leu Ala Phe Leu Leu Pro Arg Ala 5 10 15

Asp Ala Gly Glu Ile Ile Gly Gly His Glu Ala Lys Pro His Ser Arg 20 25 30

Pro Tyr Met Ala Tyr Leu Met Ile Trp Asp Gln Lys Ser Leu Lys Arg
35 40 45

Cys Gly Gly Phe Leu Ile Gln Asp Asp Phe Val Leu Thr Ala Ala His 50 55 60

Cys Trp Gly Ser Ser Ile Asn Val Thr Leu Gly Ala His Asn Ile Lys 65 70 75 80

Glu Gln Glu Pro Thr Gln Gln Phe Ile Pro Val Lys Arg Pro Ile Pro 85 90 95

His Pro Ala Tyr Asn Pro Lys Asn Phe Ser Asn Asp Ile Met Leu Leu 100 105 110

Gln Leu Glu Arg Lys Ala Lys Arg Thr Arg Ala Val Gln Pro Leu Arg 115 120 125

Leu Pro Ser Asn Lys Ala Gln Val Lys Pro Gly Gln Thr Cys Ser Val 130 135 140

Ala Gly Trp Gly Gln Thr Ala Pro Leu Gly Lys His Ser His Thr Leu 145 150 155 160

Gln Glu Val Lys Met Thr Val Gln Glu Asp Arg Lys Cys Glu Ser Asp 165 170 175

Leu Arg His Tyr Tyr Asp Ser Thr Ile Glu Leu Cys Val Gly Asp Pro 180 185 190

Glu Ile Lys Lys Thr Ser Phe Lys Gly Asp Ser Gly Gly Pro Leu Val 195 200 205

Cys Asn Lys Val Ala Gln Gly Ile Val Ser Tyr Gly Arg Asn Asn Gly 210 215 220

Met Pro Pro Arg Ala Cys Thr Lys Val Ser Ser Phe Val His Trp Ile 225 230 235 240

Lys Lys Thr Met Lys Arg Tyr 245

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<210> 2941

<211> 191 <212> PRT

<213> Homo sapiens

<400> 2941

Met His Asp Ser Asn Asn Val Glu Lys Asp Ile Thr Pro Ser Glu Leu 5 10

Pro Ala Asn Pro Gly Cys Leu His Ser Lys Glu His Ser Ile Lys Ala

Thr Leu Ile Trp Arg Leu Phe Phe Leu Ile Met Phe Leu Thr Ile Ile 35 40

Val Cys Gly Met Val Ala Ala Leu Ser Ala Ile Arg Ala Asn Cys His 55

Gln Glu Pro Ser Val Cys Leu Gln Ala Ala Cys Pro Glu Ser Trp Ile 75 70

Gly Phe Gln Arg Lys Cys Phe Tyr Phe Ser Asp Asp Thr Lys Asn Trp

Thr Ser Ser Gln Arg Phe Cys Asp Ser Gln Asp Ala Asp Leu Ala Gln 100

Val Glu Ser Phe Gln Glu Leu Asn Phe Leu Leu Arg Tyr Lys Gly Pro 120

Ser Asp His Trp Ile Gly Leu Ser Arg Glu Gln Gly Gln Pro Trp Lys 135

Trp Ile Asn Gly Thr Glu Trp Thr Arg Gln Phe Pro Ile Leu Gly Ala 150 155

Gly Glu Cys Ala Tyr Leu Asn Asp Lys Gly Ala Ser Ser Ala Arg His 170 165

Tyr Thr Glu Arg Lys Trp Ile Cys Ser Lys Ser Asp Ile His Val 185 180

<210> 2942

<211> 441 <212> PRT <213> Homo sapiens

<400> 2942

Met Glu Ile Arg Leu Asp Thr Leu Ser Ala Ser Leu Gly Arg Ser Ser 1 10 15

- Thr Leu Asn Asp Cys Asn Leu Glu Asp Lys Leu Ala Trp Tyr Glu Gly
- Glu Ala Tyr Met Trp His His Trp Lys Pro Phe Pro Glu Asn Pro Leu 35 40 45
- Trp Thr Cys Leu Asp Phe Gln Ile Ala Gln Val Gly Pro Trp Asp Tyr 50 55 60
- Cys Ser Ser Cys Ile Arg His Thr Arg Leu Lys Ser Ser Cys Ser Asp
  65 70 75 80
- Met Asp Leu Leu His Ser Trp Arg Ser Ser Ser Phe Gly Asn Phe Asp 85 90 95
- Arg Phe Arg Asn Asn Ser Leu Ser Lys Pro Asp Asp Ser Thr Glu Ala
- His Glu Gly Asp Pro Thr Asn Gly Ser Gly Glu Gln Ser Lys Thr Ser
- Asn Asn Gly Gly Leu Gly Lys Lys Met Arg Ala Ile Ser Trp Thr
- Met Lys Lys Lys Val Gly Lys Lys Tyr Ile Lys Ala Leu Ser Glu Glu 145 150 155 160
- Lys Asp Glu Glu Asp Gly Glu Asn Ala His Pro Tyr Arg Asn Ser Asp 165 170 175
- Pro Val Ile Gly Thr His Thr Glu Lys Val Ser Leu Lys Ala Ser Asp 180 . 185 190
- Ser Met Asp Ser Leu Tyr Ser Gly Gln Ser Ser Ser Ser Gly Ile Thr
- Ser Cys Ser Asp Gly Thr Ser Asn Arg Asp Ser Phe Arg Leu Asp Asp 210 215 220
- Asp Gly Pro Tyr Ser Gly Pro Phe Cys Gly Arg Ala Arg Val His Thr 225 230 235 240

Asp Phe Thr Pro Ser Pro Tyr Asp Thr Asp Ser Leu Lys Ile Lys Lys 250 Gly Asp Ile Ile Asp Ile Ile Cys Lys Thr Pro Met Gly Met Trp Thr Gly Met Leu Asn Asn Lys Val Gly Asn Phe Lys Phe Ile Tyr Val Asp 280 Val Ile Ser Glu Glu Glu Ala Ala Pro Lys Lys Ile Lys Ala Asn Arg 295 Arg Ser Asn Ser Lys Lys Ser Lys Thr Leu Gln Glu Phe Leu Glu Arg 310 Ile His Leu Gln Glu Tyr Thr Ser Thr Leu Leu Leu Asn Gly Tyr Glu 330 Thr Leu Glu Asp Leu Lys Asp Ile Lys Glu Ser His Leu Ile Glu Leu 345 Asn Ile Glu Asn Pro Asp Asp Arg Arg Leu Leu Ser Ala Ala Glu 355 360 Asn Phe Leu Glu Glu Glu Ile Ile Gln Glu Gln Glu Asn Glu Pro Glu 375 370 Pro Leu Ser Leu Ser Ser Asp Ile Ser Leu Asn Lys Ser Gln Leu Asp 390 385 Asp Cys Pro Arg Asp Ser Gly Cys Tyr Ile Ser Ser Gly Asn Ser Asp 410 405 Asn Gly Lys Glu Asp Leu Glu Ser Glu Asn Leu Ser Asp Met Val His 420 425 Lys Ile Ile Ile Thr Glu Pro Ser Asp 440 <210> 2943 <211> 564 <212> PRT <213> Homo sapiens <400> 2943

10

Met Lys Glu His Gly Gly Thr Phe Ser Ser Thr Gly Ile Ser Gly Gly

Ser Gly Asp Ser Ala Met Asp Ser Leu Gln Pro Leu Gln Pro Asn Tyr 20 25 30

- Met Pro Val Cys Leu Phe Ala Glu Glu Ser Tyr Gln Lys Leu Ala Met 35 40 45
- Glu Thr Leu Glu Glu Leu Asp Trp Cys Leu Asp Gln Leu Glu Thr Ile 50 55 60
- Gln Thr Tyr Arg Ser Val Ser Glu Met Ala Ser Asn Lys Phe Lys Arg 65 70 75 80
- Met Leu Asn Arg Glu Leu Thr His Leu Ser Glu Met Ser Arg Ser Gly 85 90 95
- Asn Gln Val Ser Glu Tyr Ile Ser Asn Thr Phe Leu Asp Lys Gln Asn 100 105 110
- Asp Val Glu Ile Pro Ser Pro Thr Gln Lys Asp Arg Glu Lys Lys Lys 115 120 125
- Lys Gln Gln Leu Met Thr Gln Ile Ser Gly Val Lys Lys Leu Met His 130 135 140
- Ser Ser Ser Leu Asn Asn Thr Ser Ile Ser Arg Phe Gly Val Asn Thr 145 150 155 160
- Glu Asn Glu Asp His Leu Ala Lys Glu Leu Glu Asp Leu Asn Lys Trp 165 170 175
- Gly Leu Asn Ile Phe Asn Val Ala Gly Tyr Ser His Asn Arg Pro Leu 180 185 190
- Thr Cys Ile Met Tyr Ala Ile Phe Gln Glu Arg Asp Leu Leu Lys Thr 195 200 205
- Phe Arg Ile Ser Ser Asp Thr Phe Ile Thr Tyr Met Met Thr Leu Glu 210 215 220
- Asp His Tyr His Ser Asp Val Ala Tyr His Asn Ser Leu His Ala Ala 225 230 235 240
- Asp Val Ala Gln Ser Thr His Val Leu Leu Ser Thr Pro Ala Leu Asp 245 250 255

Ala Val Phe Thr Asp Leu Glu Ile Leu Ala Ala Ile Phe Ala Ala Ala 260 265 270

- Ile His Asp Val Asp His Pro Gly Val Ser Asn Gln Phe Leu Ile Asn 275 280 285
- Thr Asn Ser Glu Leu Ala Leu Met Tyr Asn Asp Glu Ser Val Leu Glu 290 295 300
- Asn His His Leu Ala Val Gly Phe Lys Leu Gln Glu Glu His Cys 305 310 315 320
- Asp Ile Phe Met Asn Leu Thr Lys Lys Gln Arg Gln Thr Leu Arg Lys 325 330 335
- Met Val Ile Asp Met Val Leu Ala Thr Asp Met Ser Lys His Met Ser 340 345 350
- Leu Leu Ala Asp Leu Lys Thr Met Val Glu Thr Lys Lys Val Thr Ser 355 360 365
- Ser Gly Val Leu Leu Leu Asp Asn Tyr Thr Asp Arg Ile Gln Val Leu 370 380
- Arg Asn Met Val His Cys Ala Asp Leu Ser Asn Pro Thr Lys Ser Leu 385 390 395 400
- Glu Leu Tyr Arg Gln Trp Thr Asp Arg Ile Met Glu Glu Phe Phe Gln 405 410 415
- Gln Gly Asp Lys Glu Arg Glu Arg Gly Met Glu Ile Ser Pro Met Cys 420 425 430
- Asp Lys His Thr Ala Ser Val Glu Lys Ser Gln Val Gly Phe Ile Asp 435 440 445
- Tyr Ile Val His Pro Leu Trp Glu Thr Trp Ala Asp Leu Val Gln Pro 450 455 460
- Asp Ala Gln Asp Ile Leu Asp Thr Leu Glu Asp Asn Arg Asn Trp Tyr 465 470 475 480
- Gln Ser Met Ile Pro Gln Ser Pro Ser Pro Pro Leu Asp Glu Gln Asn 485 490 495

Arg Asp Cys Gln Gly Leu Met Glu Lys Phe Gln Phe Glu Leu Thr Leu 500 505 510

Asp Glu Glu Asp Ser Glu Gly Pro Glu Lys Glu Gly Glu Gly His Ser 515 520 525

Tyr Phe Ser Ser Thr Lys Thr Leu Cys Val Ile Asp Pro Glu Asn Arg 530 535 540

Asp Ser Leu Gly Glu Thr Asp Ile Asp Ile Ala Thr Glu Asp Lys Ser 545 550 555 560

Pro Val Asp Thr

<210> 2944

<211> 91

<212> PRT

<213> Homo sapiens

<400> 2944

Met Lys Val Ser Ala Ala Ala Leu Ala Val Ile Leu Ile Ala Thr Ala 1 5 10 15

Leu Cys Ala Pro Ala Ser Ala Ser Pro Tyr Ser Ser Asp Thr Thr Pro
20 25 30

Cys Cys Phe Ala Tyr Ile Ala Arg Pro Leu Pro Arg Ala His Ile Lys 35 40 45

Glu Tyr Phe Tyr Thr Ser Gly Lys Cys Ser Asn Pro Ala Val Phe 50 55 60

Val Thr Arg Lys Asn Arg Gln Val Cys Ala Asn Pro Glu Lys Lys Trp 65 70 75 80

Val Arg Glu Tyr Ile Asn Ser Leu Glu Met Ser 85 90

<210> 2945

<211> 461

<212> PRT

<213> Homo sapiens

<400> 2945

Met Ala Pro Val Ala Val Trp Ala Ala Leu Ala Val Gly Leu Glu Leu 1 5 10 15

Trp Ala Ala Ala His Ala Leu Pro Ala Gln Val Ala Phe Thr Pro Tyr
20 25 30

- Ala Pro Glu Pro Gly Ser Thr Cys Arg Leu Arg Glu Tyr Tyr Asp Gln 35 40 45
- Thr Ala Gln Met Cys Cys Ser Lys Cys Ser Pro Gly Gln His Ala Lys 50 55 60
- Val Phe Cys Thr Lys Thr Ser Asp Thr Val Cys Asp Ser Cys Glu Asp 65 70 75 80
- Ser Thr Tyr Thr Gln Leu Trp Asn Trp Val Pro Glu Cys Leu Ser Cys 85 90 95
- Gly Ser Arg Cys Ser Ser Asp Gln Val Glu Thr Gln Ala Cys Thr Arg 100 105 110
- Glu Gln Asn Arg Ile Cys Thr Cys Arg Pro Gly Trp Tyr Cys Ala Leu 115 120 125
- Ser Lys Gln Glu Gly Cys Arg Leu Cys Ala Pro Leu Arg Lys Cys Arg 130 135 140
- Pro Gly Phe Gly Val Ala Arg Pro Gly Thr Glu Thr Ser Asp Val Val 145 150 155 160
- Cys Lys Pro Cys Ala Pro Gly Thr Phe Ser Asn Thr Thr Ser Ser Thr 165 170 175
- Asp Ile Cys Arg Pro His Gln Ile Cys Asn Val Val Ala Ile Pro Gly 180 185 190
- Asn Ala Ser Met Asp Ala Val Cys Thr Ser Thr Ser Pro Thr Arg Ser 195 200 205
- Met Ala Pro Gly Ala Val His Leu Pro Gln Pro Val Ser Thr Arg Ser 210 215 220
- Gln His Thr Gln Pro Thr Pro Glu Pro Ser Thr Ala Pro Ser Thr Ser 225 230 235 240
- Phe Leu Leu Pro Met Gly Pro Ser Pro Pro Ala Glu Gly Ser Thr Gly 245 250 255

Asp Phe Ala Leu Pro Val Gly Leu Ile Val Gly Val Thr Ala Leu Gly 260 265 270

- Leu Leu Ile Ile Gly Val Val Asn Cys Val Ile Met Thr Gln Val Lys 275 280 285
- Lys Lys Pro Leu Cys Leu Gln Arg Glu Ala Lys Val Pro His Leu Pro 290 295 300
- Ala Asp Lys Ala Arg Gly Thr Gln Gly Pro Glu Gln Gln His Leu Leu 305 310 315 320
- Ile Thr Ala Pro Ser Ser Ser Ser Ser Leu Glu Ser Ser Ala Ser 325 330 335
- Ala Leu Asp Arg Arg Ala Pro Thr Arg Asn Gln Pro Gln Ala Pro Gly 340 345 350
- Val Glu Ala Ser Gly Ala Gly Glu Ala Arg Ala Ser Thr Gly Ser Ser 355 360 365
- Asp Ser Ser Pro Gly Gly His Gly Thr Gln Val Asn Val Thr Cys Ile 370 380
- Val Asn Val Cys Ser Ser Ser Asp His Ser Ser Gln Cys Ser Ser Gln 385 390 395 400
- Ala Ser Ser Thr Met Gly Asp Thr Asp Ser Ser Pro Ser Glu Ser Pro 405 410 415
- Lys Asp Glu Gln Val Pro Phe Ser Lys Glu Glu Cys Ala Phe Arg Ser 420 425 430
- Gln Leu Glu Thr Pro Glu Thr Leu Leu Gly Ser Thr Glu Glu Lys Pro
  435 440 445
- Leu Pro Leu Gly Val Pro Asp Ala Gly Met Lys Pro Ser 450 455 460
- <210> 2946
- <211> 823
- <212> PRT
- <213> Homo sapiens
- <400> 2946
- Met Ser Arg Arg Lys Gln Gly Asn Pro Gln His Leu Ser Gln Arg Glu

  1 10 15

Leu Ile Thr Pro Glu Ala Asp His Val Glu Ala Ala Ile Leu Glu Glu 20 25 30

- Asp Glu Gly Leu Glu Ile Glu Glu Pro Ser Gly Leu Gly Leu Met Val 35 40 45
- Gly Gly Pro Asp Pro Asp Leu Leu Thr Cys Gly Gln Cys Gln Met Asn 50 55 60
- Phe Pro Leu Gly Asp Ile Leu Val Phe Ile Glu His Lys Arg Lys Gln 65 70 75 80
- Cys Gly Gly Ser Leu Gly Ala Cys Tyr Asp Lys Ala Leu Asp Lys Asp 85 90 95
- Ser Pro Pro Pro Ser Ser Arg Ser Glu Leu Arg Lys Val Ser Glu Pro 100 105 110
- Val Glu Ile Gly Ile Gln Val Thr Pro Asp Glu Asp Asp His Leu Leu 115 120 125
- Ser Pro Thr Lys Gly Ile Cys Pro Lys Gln Glu Asn Ile Ala Gly Lys 130 135 140
- Asp Glu Pro Ser Ser Tyr Ile Cys Thr Thr Cys Lys Gln Pro Phe Asn 145 150 155 160
- Ser Ala Trp Phe Leu Leu Gln His Ala Gln Asn Thr His Gly Phe Arg 165 170 175
- Ile Tyr Leu Glu Pro Gly Pro Ala Ser Ser Ser Leu Thr Pro Arg Leu 180 185 190
- Thr Ile Pro Pro Pro Leu Gly Pro Glu Ala Val Ala Gln Ser Pro Leu 195 200 205
- Met Asn Phe Leu Gly Asp Ser Asn Pro Phe Asn Leu Leu Arg Met Thr 210 215 220
- Gly Pro Ile Leu Arg Asp His Pro Gly Phe Gly Glu Gly Arg Leu Pro 225 230 235 240
- Gly Thr Pro Pro Leu Phe Ser Pro Pro Pro Arg His His Leu Asp Pro 245 250 255

His Arg Leu Ser Ala Glu Glu Met Gly Leu Val Ala Gln His Pro Ser 260 265 270

- Ala Phe Asp Arg Val Met Arg Leu Asn Pro Met Ala Ile Asp Ser Pro 275 280 285
- Ala Met Asp Phe Ser Arg Arg Leu Arg Glu Leu Ala Gly Asn Ser Ser 290 295 300
- Thr Pro Pro Pro Val Ser Pro Gly Arg Gly Asn Pro Met His Arg Leu 305 310 315 320
- Leu Asn Pro Phe Gln Pro Ser Pro Lys Ser Pro Phe Leu Ser Thr Pro 325 330 335
- Pro Leu Pro Pro Met Pro Pro Gly Gly Thr Pro Pro Pro Gln Pro Pro 340 345 350
- Ala Lys Ser Lys Ser Cys Glu Phe Cys Gly Lys Thr Phe Lys Phe Gln 355 360 365
- Ser Asn Leu Ile Val His Arg Arg Ser His Thr Gly Glu Lys Pro Tyr 370 375 380
- Lys Cys Gln Leu Cys Asp His Ala Cys Ser Gln Ala Ser Lys Leu Lys 385 390 395 400
- Arg His Met Lys Thr His Met His Lys Ala Gly Ser Leu Ala Gly Arg
  405 410 415
- Ser Asp Asp Gly Leu Ser Ala Ala Ser Ser Pro Glu Pro Gly Thr Ser 420 425 430
- Glu Leu Ala Gly Glu Gly Leu Lys Ala Ala Asp Gly Asp Phe Arg His
  435 440 445
- His Glu Ser Asp Pro Ser Leu Gly His Glu Pro Glu Glu Glu Asp Glu 450 455 460
- Glu Glu Glu Glu Glu Glu Glu Leu Leu Leu Glu Asn Glu Ser Arg
  470 475 480
- Pro Glu Ser Ser Phe Ser Met Asp Ser Glu Leu Ser Arg Asn Arg Glu
  485 490 495

Asn Gly Gly Gly Val Pro Gly Val Pro Gly Ala Gly Gly Ala 500 505 510

- Ala Lys Ala Leu Ala Asp Glu Lys Ala Leu Val Leu Gly Lys Val Met 515 520 525
- Glu Asn Val Gly Leu Gly Ala Leu Pro Gln Tyr Gly Glu Leu Leu Ala 530 535 540
- Asp Lys Gln Lys Arg Gly Ala Phe Leu Lys Arg Ala Ala Gly Gly 545 550 555 560
- Asp Ala Gly Asp Asp Asp Ala Gly Gly Cys Gly Asp Ala Gly Ala 565 570 575
- Gly Gly Ala Val Asn Gly Arg Gly Gly Phe Ala Pro Gly Thr Glu 580 585 590
- Pro Phe Pro Gly Leu Phe Pro Arg Lys Pro Ala Pro Leu Pro Ser Pro 595 600 605
- Gly Leu Asn Ser Ala Ala Lys Arg Ile Lys Val Glu Lys Asp Leu Glu 610 620
- Leu Pro Pro Ala Ala Leu Ile Pro Ser Glu Asn Val Tyr Ser Gln Trp 625 630 635 640
- Leu Val Gly Tyr Ala Ala Ser Arg His Phe Met Lys Asp Pro Phe Leu 645 650 655
- Gly Phe Thr Asp Ala Arg Gln Ser Pro Phe Ala Thr Ser Ser Glu His
  660 665 670
- Ser Ser Glu Asn Gly Ser Leu Arg Phe Ser Thr Pro Pro Gly Asp Leu 675 680 685
- Leu Asp Gly Gly Leu Ser Gly Arg Ser Gly Thr Ala Ser Gly Gly Ser 690 695 700
- Thr Pro His Leu Gly Gly Pro Gly Pro Gly Arg Pro Ser Ser Lys Glu
  705 710 715 720
- Gly Arg Arg Ser Asp Thr Cys Glu Tyr Cys Gly Lys Val Phe Lys Asn 725 730 735
- Cys Ser Asn Leu Thr Val His Arg Arg Ser His Thr Gly Glu Arg Pro

740 745 750

Tyr Lys Cys Glu Leu Cys Asn Tyr Ala Cys Ala Gln Ser Ser Lys Leu 755 760 765

Thr Arg His Met Lys Thr His Gly Gln Ile Gly Lys Glu Val Tyr Arg
770 780

Cys Asp Ile Cys Gln Met Pro Phe Ser Val Tyr Ser Thr Leu Glu Lys 785 790 795 800

His Met Lys Lys Trp His Gly Glu His Leu Leu Thr Asn Asp Val Lys 805 810 815

Ile Glu Gln Ala Glu Arg Ser 820

<210> 2947

<211> 441

<212> PRT

<213> Homo sapiens

<400> 2947

Met Val Pro Pro Lys Leu His Val Leu Phe Cys Leu Cys Gly Cys Leu 1 5 10 15

Ala Val Val Tyr Pro Phe Asp Trp Gln Tyr Ile Asn Pro Val Ala His 20 25 30

Met Lys Ser Ser Ala Trp Val Asn Lys Ile Gln Val Leu Met Ala Ala 35 40 45

Ala Ser Phe Gly Gln Thr Lys Ile Pro Arg Gly Asn Gly Pro Tyr Ser 50 55 60

Val Gly Cys Thr Asp Leu Met Phe Asp His Thr Asn Lys Gly Thr Phe 65 70 75 80

Leu Arg Leu Tyr Tyr Pro Ser Gln Asp Asn Asp Arg Leu Asp Thr Leu 85 90 95

Trp Ile Pro Asn Lys Glu Tyr Phe Trp Gly Leu Ser Lys Phe Leu Gly
100 105 110

Thr His Trp Leu Met Gly Asn Ile Leu Arg Leu Leu Phe Gly Ser Met 115 120 125

Thr Thr Pro Ala Asn Trp Asn Ser Pro Leu Arg Pro Gly Glu Lys Tyr 130 135 140

- Pro Leu Val Val Phe Ser His Gly Leu Gly Ala Phe Arg Thr Leu Tyr 145 150 155 160
- Ser Ala Ile Gly Ile Asp Leu Ala Ser His Gly Phe Ile Val Ala Ala 165 170 175
- Val Glu His Arg Asp Arg Ser Ala Ser Ala Thr Tyr Tyr Phe Lys Asp 180 185 190
- Gln Ser Ala Ala Glu Ile Gly Asp Lys Ser Trp Leu Tyr Leu Arg Thr 195 200 205
- Leu Lys Gln Glu Glu Glu Thr His Ile Arg Asn Glu Gln Val Arg Gln 210 215 220
- Arg Ala Lys Glu Cys Ser Gln Ala Leu Ser Leu Ile Leu Asp Ile Asp 225 230 235 240
- His Gly Lys Pro Val Lys Asn Ala Leu Asp Leu Lys Phe Asp Met Glu 245 250 255
- Gln Leu Lys Asp Ser Ile Asp Arg Glu Lys Ile Ala Val Ile Gly His 260 265 270
- Ser Phe Gly Gly Ala Thr Val Ile Gln Thr Leu Ser Glu Asp Gln Arg 275 280 285
- Phe Arg Cys Gly Ile Ala Leu Asp Ala Trp Met Phe Pro Leu Gly Asp 290 295 300
- Glu Val Tyr Ser Arg Ile Pro Gln Pro Leu Phe Phe Ile Asn Ser Glu 305 310 315 320
- Tyr Phe Gln Tyr Pro Ala Asn Ile Ile Lys Met Lys Lys Cys Tyr Ser 325 330 335
- Pro Asp Lys Glu Arg Lys Met Ile Thr Ile Arg Gly Ser Val His Gln 340 345 350
- Asn Phe Ala Asp Phe Thr Phe Ala Thr Gly Lys Ile Ile Gly His Met 355 360 365

Leu Lys Leu Lys Gly Asp Ile Asp Ser Asn Val Ala Ile Asp Leu Ser 370 380

Asn Lys Ala Ser Leu Ala Phe Leu Gln Lys His Leu Gly Leu His Lys 385 390 395 400

Asp Phe Asp Gln Trp Asp Cys Leu Ile Glu Gly Asp Asp Glu Asn Leu 405 410 415

Ile Pro Gly Thr Asn Ile Asn Thr Thr Asn Gln His Ile Met Leu Gln 420 425 430

Asn Ser Ser Gly Ile Glu Lys Tyr Asn 435 440

<210> 2948

<211> 1044

<212> PRT

<213> Homo sapiens

<400> 2948

Met Pro Pro Gly Val Asp Cys Pro Met Glu Phe Trp Thr Lys Glu Glu 1 5 10 15

Asn Gln Ser Val Val Val Asp Phe Leu Leu Pro Thr Gly Val Tyr Leu 20 25 30

Asn Phe Pro Val Ser Arg Asn Ala Asn Leu Ser Thr Ile Lys Gln Leu 35 40 45

Leu Trp His Arg Ala Gln Tyr Glu Pro Leu Phe His Met Leu Ser Gly 50 55 60

Pro Glu Ala Tyr Val Phe Thr Cys Ile Asn Gln Thr Ala Glu Gln Gln 65 70 75 80

Glu Leu Glu Asp Glu Gln Arg Arg Leu Cys Asp Val Gln Pro Phe Leu 85 90 95

Pro Val Leu Arg Leu Val Ala Arg Glu Gly Asp Arg Val Lys Lys Leu

Ile Asn Ser Gln Ile Ser Leu Leu Ile Gly Lys Gly Leu His Glu Phe
115 120 125

Asp Ser Leu Cys Asp Pro Glu Val Asn Asp Phe Arg Ala Lys Met Cys 130 135 140

Gln Phe Cys Glu Glu Ala Ala Ala Arg Arg Gln Gln Leu Gly Trp Glu 145 150 155 160

- Ala Trp Leu Gln Tyr Ser Phe Pro Leu Gln Leu Glu Pro Ser Ala Gln 165 170 175
- Thr Trp Gly Pro Gly Thr Leu Arg Leu Pro Asn Arg Ala Leu Leu Val
- Asn Val Lys Phe Glu Gly Ser Glu Glu Ser Phe Thr Phe Gln Val Ser 195 200 205
- Thr Lys Asp Val Pro Leu Ala Leu Met Ala Cys Ala Leu Arg Lys Lys 210 215 220
- Ala Thr Val Phe Arg Gln Pro Leu Val Glu Gln Pro Glu Asp Tyr Thr 225 230 235 240
- Leu Gln Val Asn Gly Arg His Glu Tyr Leu Tyr Gly Asn Tyr Pro Leu 245 250 255
- Cys Gln Phe Gln Tyr Ile Cys Ser Cys Leu His Ser Gly Leu Thr Pro 260 265 270
- His Leu Thr Met Val His Ser Ser Ser Ile Leu Ala Met Arg Asp Glu 275 280 285
- Gln Ser Asn Pro Ala Pro Gln Val Gln Lys Pro Arg Ala Lys Pro Pro 290 295 300
- Pro Ile Pro Ala Lys Lys Pro Ser Ser Val Ser Leu Trp Ser Leu Glu 305 310 315 320
- Gln Pro Phe Arg Ile Glu Leu Ile Gln Gly Ser Lys Val Asn Ala Asp 325 330 335
- Glu Arg Met Lys Leu Val Val Gln Ala Gly Leu Phe His Gly Asn Glu 340 345 350
- Met Leu Cys Lys Thr Val Ser Ser Glu Val Ser Val Cys Ser Glu 355 360 365
- Pro Val Trp Lys Gln Arg Leu Glu Phe Asp Ile Asn Ile Cys Asp Leu 370 375 380

Pro Arg Met Ala Arg Leu Cys Phe Ala Leu Tyr Ala Val Ile Glu Lys 385 390 395 400

- Ala Lys Lys Ala Arg Ser Thr Lys Lys Lys Ser Lys Lys Ala Asp Cys 405 410 415
- Pro Ile Ala Trp Ala Asn Leu Met Leu Phe Asp Tyr Lys Asp Gln Leu 420 425 430
- Lys Thr Gly Glu Arg Cys Leu Tyr Met Trp Pro Ser Val Pro Asp Glu
  435 440 445
- Lys Gly Glu Leu Leu Asn Pro Thr Gly Thr Val Arg Ser Asn Pro Asn 450 455 460
- Thr Asp Ser Ala Ala Ala Leu Leu Ile Cys Leu Pro Glu Val Ala Pro 465 470 475 480
- His Pro Val Tyr Tyr Pro Ala Leu Glu Lys Ile Leu Glu Leu Gly Arg 485 490 495
- His Ser Glu Cys Val His Val Thr Glu Glu Glu Gln Leu Gln Leu Arg 500 505 510
- Glu Ile Leu Glu Arg Arg Gly Ser Gly Glu Leu Tyr Glu His Glu Lys 515 520 525
- Asp Leu Val Trp Lys Leu Arg His Glu Val Gln Glu His Phe Pro Glu 530 535 540
- Ala Leu Ala Arg Leu Leu Leu Val Thr Lys Trp Asn Lys His Glu Asp 545 550 555 560
- Val Ala Gln Met Leu Tyr Leu Leu Cys Ser Trp Pro Glu Leu Pro Val 565 570 575
- Leu Ser Ala Leu Glu Leu Leu Asp Phe Ser Phe Pro Asp Cys His Val 580 585 590
- Gly Ser Phe Ala Ile Lys Ser Leu Arg Lys Leu Thr Asp Asp Glu Leu 595 600 605
- Phe Gln Tyr Leu Leu Gln Leu Val Gln Val Leu Lys Tyr Glu Ser Tyr 610 615 620

Leu Asp Cys Glu Leu Thr Lys Phe Leu Leu Asp Arg Ala Leu Ala Asn 625 630 635 640

- Arg Lys Ile Gly His Phe Leu Phe Trp His Leu Arg Ser Glu Met His 645 650 655
- Val Pro Ser Val Ala Leu Arg Phe Gly Leu Ile Leu Glu Ala Tyr Cys 660 665 670
- Arg Gly Ser Thr His His Met Lys Val Leu Met Lys Gln Gly Glu Ala 675 680 685
- Leu Ser Lys Leu Lys Ala Leu Asn Asp Phe Val Lys Leu Ser Ser Gln 690 695 700
- Lys Thr Pro Lys Pro Gln Thr Lys Glu Leu Met His Leu Cys Met Arg
  705 710 715 720
- Gln Glu Ala Tyr Leu Glu Ala Leu Ser His Leu Gln Ser Pro Leu Asp
  725 730 735
- Pro Ser Thr Leu Leu Ala Glu Val Cys Val Glu Gln Cys Thr Phe Met 740 745 750
- Asp Ser Lys Met Lys Pro Leu Trp Ile Met Tyr Ser Asn Glu Glu Ala 755 760 765
- Gly Ser Gly Gly Ser Val Gly Ile Ile Phe Lys Asn Gly Asp Asp Leu 770 775 780
- Arg Gln Asp Met Leu Thr Leu Gln Met Ile Gln Leu Met Asp Val Leu 785 790 795 800
- Trp Lys Gln Glu Gly Leu Asp Leu Arg Met Thr Pro Tyr Gly Cys Leu 805 810 815
- Pro Thr Gly Asp Arg Thr Gly Leu Ile Glu Val Val Leu Arg Ser Asp 820 825 830
- Thr Ile Ala Asn Ile Gln Leu Asn Lys Ser Asn Met Ala Ala Thr Ala 835 840 845
- Ala Phe Asn Lys Asp Ala Leu Leu Asn Trp Leu Lys Ser Lys Asn Pro 850 855 860
- Gly Glu Ala Leu Asp Arg Ala Ile Glu Glu Phe Thr Leu Ser Cys Ala

865 870 875 880

Gly Tyr Cys Val Ala Thr Tyr Val Leu Gly Ile Gly Asp Arg His Ser 885 890 895

Asp Asn Ile Met Ile Arg Glu Ser Gly Gln Leu Phe His Ile Asp Phe 900 905 910

Gly His Phe Leu Gly Asn Phe Lys Thr Lys Phe Gly Ile Asn Arg Glu 915 920 925

Arg Val Pro Phe Ile Leu Thr Tyr Asp Phe Val His Val Ile Gln Gln 930 935 940

Gly Lys Thr Asn Asn Ser Glu Lys Phe Glu Arg Phe Arg Gly Tyr Cys 945 950 955 960

Glu Arg Ala Tyr Thr Ile Leu Arg Arg His Gly Leu Leu Phe Leu His 965 970 975

Leu Phe Ala Leu Met Arg Ala Ala Gly Leu Pro Glu Leu Ser Cys Ser 980 985 990

Lys Asp Ile Gln Tyr Leu Lys Asp Ser Leu Ala Leu Gly Lys Thr Glu 995 1000 1005

Glu Glu Ala Leu Lys His Phe Arg Val Lys Phe Asn Glu Ala Leu 1010 1015 1020

Arg Glu Ser Trp Lys Thr Lys Val Asn Trp Leu Ala His Asn Val 1025 1030 1035

Ser Lys Asp Asn Arg Gln 1040

<210> 2949

<211> 167

<212> PRT

<213> Homo sapiens

<400> 2949

Met Glu His Ile His Asp Ser Asp Gly Ser Ser Ser Ser His Gln
1 5 10 15

Ser Leu Lys Ser Thr Ala Lys Trp Ala Ala Ser Leu Glu Asn Leu Leu 20 25 30

Glu Asp Pro Glu Gly Val Lys Arg Phe Arg Glu Phe Leu Lys Lys Glu 35 40 45

Phe Ser Glu Glu Asn Val Leu Phe Trp Leu Ala Cys Glu Asp Phe Lys 50 55 60

Lys Met Gln Asp Lys Thr Gln Met Gln Glu Lys Ala Lys Glu Ile Tyr 65 70 75 80

Met Thr Phe Leu Ser Ser Lys Ala Ser Ser Gln Val Asn Val Glu Gly 85 90 95

Gln Ser Arg Leu Asn Glu Lys Ile Leu Glu Glu Pro His Pro Leu Met 100 105 110

Phe Gln Lys Leu Gln Asp Gln Ile Phe Asn Leu Met Lys Tyr Asp Ser 115 120 125

Tyr Ser Arg Phe Leu Lys Ser Asp Leu Phe Leu Lys His Lys Arg Thr 130 135 140

Glu Glu Glu Glu Asp Leu Pro Asp Ala Gln Thr Ala Ala Lys Arg 145 150 155 160

Ala Ser Arg Ile Tyr Asn Thr 165

<210> 2950

<211> 263

<212> PRT

<213> Homo sapiens

<400> 2950

Met Val Lys Ile Ala Phe Asn Thr Pro Thr Ala Val Gln Lys Glu Glu 1 5 10 15

Ala Arg Gln Asp Val Glu Ala Leu Leu Ser Arg Thr Val Arg Thr Gln 20 25 30

Ile Leu Thr Gly Lys Glu Leu Arg Val Ala Thr Gln Glu Lys Glu Gly 35 40 45

Ser Ser Gly Arg Cys Met Leu Thr Leu Leu Gly Leu Ser Phe Ile Leu 50 55 60

Ala Gly Leu Ile Val Gly Gly Ala Cys Ile Tyr Lys Tyr Phe Met Pro

65 70 75 80

Lys Ser Thr Ile Tyr Arg Gly Glu Met Cys Phe Phe Asp Ser Glu Asp 85 90 95

Pro Ala Asn Ser Leu Arg Gly Gly Glu Pro Asn Phe Leu Pro Val Thr 100 105 110

Glu Glu Ala Asp Ile Arg Glu Asp Asp Asn Ile Ala Ile Ile Asp Val 115 120 125

Pro Val Pro Ser Phe Ser Asp Ser Asp Pro Ala Ala Ile Ile His Asp 130 135 140

Phe Glu Lys Gly Met Thr Ala Tyr Leu Asp Leu Leu Gly Asn Cys 145 150 155 160

Tyr Leu Met Pro Leu Asn Thr Ser Ile Val Met Pro Pro Lys Asn Leu 165 170 175

Val Glu Leu Phe Gly Lys Leu Ala Ser Gly Arg Tyr Leu Pro Gln Thr 180 185 190

Tyr Val Val Arg Glu Asp Leu Val Ala Val Glu Glu Ile Arg Asp Val 195 200 205

Ser Asn Leu Gly Ile Phe Ile Tyr Gln Leu Cys Asn Asn Arg Lys Ser 210 215 220

Phe Arg Leu Arg Arg Arg Asp Leu Leu Gly Phe Asn Lys Arg Ala 225 230 235 240

Ile Asp Lys Cys Trp Lys Ile Arg His Phe Pro Asn Glu Phe Ile Val 245 250 255

Glu Thr Lys Ile Cys Gln Glu 260

<210> 2951

<211> 201

<212> PRT

<213> Homo sapiens

<400> 2951

Met Asp Pro Gly Trp Pro Cys Cys Pro Leu Pro Val Ala Phe Leu Ser 1 5 10 15

Arg Trp Leu Gln Ser Phe Val Asp Gly Leu Phe Cys Thr Gly Gly Leu 20 25 30

Leu Arg Gln Arg Thr Cys Lys Phe Ala Gly Ala Ala Ser Gln Ala Pro 35 40 45

His Ala Pro Ala Phe Leu Arg Ala Arg Gly Glu Pro Gln Asp Pro Leu 50 55 60

Ser His Pro Arg Val Pro Ala Val Ser Ala Asn Cys Arg Met Trp Lys 65 70 75 80

His Leu Pro Val His Ser Ser Pro Thr Pro Arg Leu Thr Pro Leu Trp 85 90 95

Lys Leu Gln Ala Arg Trp Leu Leu Pro Gln Leu Val Tyr Leu Gln Gly
100 105 110

Trp Gly Ser Tyr Ser Leu Leu Arg Pro Ala Ala Leu Ile Ser Met Val 115 120 125

Leu Leu Ala Arg Glu Phe Leu Tyr Pro Ala Lys Met Ser Val Ser Glu 130 135 140

Val Cys Ser Ser Gly Leu Ser Ser Pro Leu Leu Glu Gln His Lys Thr 145 150 155 160

Asn Leu Ile Phe Tyr Ala Ser Gly Asp Ile Cys Ser Ala Asn Gly Lys 165 170 175

Ser Gly Phe Asn Gln Pro Leu Pro Phe Leu Lys Thr Phe Cys Ser Thr 180 185 190

His Arg Ile Leu Ser Cys Thr Tyr Leu 195 200

<210> 2952

<211> 492

<212> PRT

<213> Homo sapiens

<400> 2952

Met Ser Asp Tyr Glu Asn Asp Asp Glu Cys Trp Ser Val Leu Glu Gly
1 5 10 15

Phe Arg Val Thr Leu Thr Ser Val Ile Asp Pro Ser Arg Ile Thr Pro

20 25 30

Tyr Leu Arg Gln Cys Lys Val Leu Asn Pro Asp Asp Glu Glu Gln Val

Leu Ser Asp Pro Asn Leu Val Ile Arg Lys Arg Lys Val Gly Val Leu 50 55 60

Leu Asp Ile Leu Gln Arg Thr Gly His Lys Gly Tyr Val Ala Phe Leu 65 70 75 80

Glu Ser Leu Glu Leu Tyr Tyr Pro Gln Leu Tyr Lys Lys Val Thr Gly 85 90 95

Lys Glu Pro Ala Arg Val Phe Ser Met Ile Ile Asp Ala Ser Gly Glu 100 105 110

Ser Gly Leu Thr Gln Leu Leu Met Thr Glu Val Met Lys Leu Gln Lys 115 120 125

Lys Val Gln Asp Leu Thr Ala Leu Leu Ser Ser Lys Asp Asp Phe Ile 130 135 140

Lys Glu Leu Arg Val Lys Asp Ser Leu Leu Arg Lys His Gln Glu Arg 145 150 155 160

Val Gln Arg Leu Lys Glu Glu Cys Glu Ala Gly Ser Arg Glu Leu Lys 165 170 175

Arg Cys Lys Glu Glu Asn Tyr Asp Leu Ala Met Arg Leu Ala His Gln 180 185 190

Ser Glu Glu Lys Gly Ala Ala Leu Met Arg Asn Arg Asp Leu Gln Leu 195 200 205

Glu Ile Asp Gln Leu Lys His Ser Leu Met Lys Ala Glu Asp Asp Cys 210 215 220

Lys Val Glu Arg Lys His Thr Leu Lys Leu Arg His Ala Met Glu Gln 225 230 235 240

Arg Pro Ser Gln Glu Leu Leu Trp Glu Leu Gln Gln Glu Lys Ala Leu 245 250 255

Leu Gln Ala Arg Val Gln Glu Leu Glu Ala Ser Val Gln Glu Gly Lys 260 265 270 Leu Asp Arg Ser Ser Pro Tyr Ile Gln Val Leu Glu Glu Asp Trp Arg 275 280 285

- Gln Ala Leu Arg Asp His Gln Glu Gln Ala Asn Thr Ile Phe Ser Leu 290 295 300
- Arg Lys Asp Leu Arg Gln Gly Glu Ala Arg Arg Leu Arg Cys Met Glu 305 310 315 320
- Glu Lys Glu Met Phe Glu Leu Gln Cys Leu Ala Leu Arg Lys Asp Ser 325 330 335
- Lys Met Tyr Lys Asp Arg Ile Glu Ala Ile Leu Leu Gln Met Glu Glu 340 345 350
- Val Ala Ile Glu Arg Asp Gln Ala Ile Ala Thr Arg Glu Glu Leu His 355 360 365
- Ala Gln His Ala Arg Gly Leu Gln Glu Lys Asp Ala Leu Arg Lys Gln 370 375 380
- Val Arg Glu Leu Gly Glu Lys Ala Asp Glu Leu Gln Leu Gln Val Phe 385 390 395 400
- Gln Cys Glu Ala Gln Leu Leu Ala Val Glu Gly Arg Leu Arg Arg Gln 405 410 415
- Gln Leu Glu Thr Leu Val Leu Ser Ser Asp Leu Glu Asp Gly Ser Pro 420 425 430
- Arg Arg Ser Gln Glu Leu Ser Leu Pro Gln Asp Leu Glu Asp Thr Gln
  435 440 445
- Leu Ser Asp Lys Gly Cys Leu Ala Gly Gly Gly Ser Pro Lys Gln Pro 450 455 460
- Phe Ala Ala Leu His Gln Glu Gln Val Leu Arg Asn Pro His Asp Ala 465 470 475 480
- Gly Pro Ala Gly Leu Pro Gly Ile Gly Ala Val Cys 485 490

<210> 2953

<211> 92

<212> PRT

<213> Homo sapiens

<400> 2953

Met Lys Leu Cys Val Thr Val Leu Ser Leu Leu Met Leu Val Ala Ala 1 5 10 15

Phe Cys Ser Pro Ala Leu Ser Ala Pro Met Gly Ser Asp Pro Pro Thr 20 25 30

Ala Cys Cys Phe Ser Tyr Thr Ala Arg Lys Leu Pro Arg Asn Phe Val 35 40 45

Val Asp Tyr Tyr Glu Thr Ser Ser Leu Cys Ser Gln Pro Ala Val Val 50 55 60

Phe Gln Thr Lys Arg Ser Lys Gln Val Cys Ala Asp Pro Ser Glu Ser 65 70 75 80

Trp Val Gln Glu Tyr Val Tyr Asp Leu Glu Leu Asn 85 90

<210> 2954

<211> 266

<212> PRT

<213> Homo sapiens

<400> 2954

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Cys Met Thr Ala Leu Thr 1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr 20 25 30

Arg Pro Arg Phe Leu Trp Gln Leu Lys Phe Glu Cys His Phe Phe Asn 35 40 45

Gly Thr Glu Arg Val Arg Leu Leu Glu Arg Cys Ile Tyr Asn Gln Glu 50 55 60

Glu Ser Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr 65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu
85 90 95

Leu Glu Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr
100 105 110

Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val Glu Pro Lys Val 115 120 125

Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu 130 135 140

Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp 145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser Thr Gly Leu 165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr 180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser 195 200 205

Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala 210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu 225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His 245 250 255

Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser 260 265

<210> 2955

<211> 359

<212> PRT

<213> Homo sapiens

<400> 2955

Met Ala Glu Ala Ile Thr Tyr Ala Asp Leu Arg Phe Val Lys Ala Pro 1 5 10 15

Leu Lys Lys Ser Ile Ser Ser Arg Leu Gly Gln Asp Pro Gly Ala Asp 20 25 30

Asp Asp Gly Glu Ile Thr Tyr Glu Asn Val Gln Val Pro Ala Val Leu 35 40 45

Gly Val Pro Ser Ser Leu Ala Ser Ser Val Leu Gly Asp Lys Ala Ala 50 55 60

Val Lys Ser Glu Gln Pro Thr Ala Ser Trp Arg Ala Val Thr Ser Pro 65 70 75 80

Ala Val Gly Arg Ile Leu Pro Cys Arg Thr Thr Cys Leu Arg Tyr Leu 85 90 95

Leu Leu Gly Leu Leu Leu Thr Cys Leu Leu Leu Gly Val Thr Ala Ile 100 105 110

Cys Leu Gly Val Arg Tyr Leu Gln Val Ser Gln Gln Leu Gln Gln Thr 115 120 125

Asn Arg Val Leu Glu Val Thr Asn Ser Ser Leu Arg Gln Gln Leu Arg 130 135 140

Leu Lys Ile Thr Gln Leu Gly Gln Ser Ala Glu Asp Leu Gln Gly Ser 145 150 155 160

Arg Arg Glu Leu Ala Gln Ser Gln Glu Ala Leu Gln Val Glu Gln Arg 165 170 175

Ala His Gln Ala Ala Glu Gly Gln Leu Gln Ala Cys Gln Ala Asp Arg 180 185 190

Gln Lys Thr Lys Glu Thr Leu Gln Ser Glu Glu Gln Gln Arg Arg Ala 195 200 205

Leu Glu Gln Lys Leu Ser Asn Met Glu Asn Arg Leu Lys Pro Phe Phe 210 215 220

Thr Cys Gly Ser Ala Asp Thr Cys Cys Pro Ser Gly Trp Ile Met His 225 230 235 240

Gln Lys Ser Cys Phe Tyr Ile Ser Leu Thr Ser Lys Asn Trp Gln Glu 245 250 255

Ser Gln Lys Gln Cys Glu Thr Leu Ser Ser Lys Leu Ala Thr Phe Ser 260 265 270

Glu Ile Tyr Pro Gln Ser His Ser Tyr Tyr Phe Leu Asn Ser Leu Leu 275 280 285

Pro Asn Gly Gly Ser Gly Asn Ser Tyr Trp Thr Gly Leu Ser Ser Asn

290 295 300

Lys Asp Trp Lys Leu Thr Asp Asp Thr Gln Arg Thr Arg Thr Tyr Ala 305 310 315 320

Gln Ser Ser Lys Cys Asn Lys Val His Lys Thr Trp Ser Trp Trp Thr 325 330 335

Leu Glu Ser Glu Ser Cys Arg Ser Ser Leu Pro Tyr Ile Cys Glu Met 340 345 350

Thr Ala Phe Arg Phe Pro Asp 355

<210> 2956

<211> 643

<212> PRT

<213> Homo sapiens

<400> 2956

Met Gln Ala Pro Arg Glu Leu Ala Val Gly Ile Asp Leu Gly Thr Thr
1 5 10 15

Tyr Ser Cys Val Gly Val Phe Gln Gln Gly Arg Val Glu Ile Leu Ala 20 25 30

Asn Asp Gln Gly Asn Arg Thr Thr Pro Ser Tyr Val Ala Phe Thr Asp 35 40 45

Thr Glu Arg Leu Val Gly Asp Ala Ala Lys Ser Gln Ala Ala Leu Asn 50 55 60

Pro His Asn Thr Val Phe Asp Ala Lys Arg Leu Ile Gly Arg Lys Phe 65 70 75 80

Ala Asp Thr Thr Val Gln Ser Asp Met Lys His Trp Pro Phe Arg Val

Val Ser Glu Gly Gly Lys Pro Lys Val Pro Val Ser Tyr Arg Gly Glu 100 105 110

Asp Lys Thr Phe Tyr Pro Glu Glu Ile Ser Ser Met Val Leu Ser Lys 115 120 125

Met Lys Glu Thr Ala Glu Ala Tyr Leu Gly Gln Pro Val Lys His Ala 130 135 140

Val Ile Thr Val Pro Ala Tyr Phe Asn Asp Ser Gln Arg Gln Ala Thr 145 150 155 160

- Lys Asp Ala Gly Ala Ile Ala Gly Leu Asn Val Leu Arg Ile Ile Asn 165 170 175
- Glu Pro Thr Ala Ala Ala Ile Ala Tyr Gly Leu Asp Arg Gly Ala 180 185 190
- Gly Glu Arg Asn Val Leu Ile Phe Asp Leu Gly Gly Gly Thr Phe Asp 195 200 205
- Val Ser Val Leu Ser Ile Asp Ala Gly Val Phe Glu Val Lys Ala Thr 210 215 220
- Ala Gly Asp Thr His Leu Gly Gly Glu Asp Phe Asp Asn Arg Leu Val 225 230 235 240
- Asn His Phe Met Glu Glu Phe Arg Arg Lys His Gly Lys Asp Leu Ser 245 250 255
- Gly Asn Lys Arg Ala Leu Gly Arg Leu Arg Thr Ala Cys Glu Arg Ala 260 265 270
- Lys Arg Thr Leu Ser Ser Ser Thr Gln Ala Thr Leu Glu Ile Asp Ser 275 280 285
- Leu Phe Glu Gly Val Asp Phe Tyr Thr Ser Ile Thr Arg Ala Arg Phe 290 295 300
- Glu Glu Leu Cys Ser Asp Leu Phe Arg Ser Thr Leu Glu Pro Val Glu 305 310 315 320
- Lys Ala Leu Arg Asp Ala Lys Leu Asp Lys Ala Gln Ile His Asp Val 325 330 335
- Val Leu Val Gly Gly Ser Thr Arg Ile Pro Lys Val Gln Lys Leu Leu 340 345 350
- Gln Asp Phe Phe Asn Gly Lys Glu Leu Asn Lys Ser Ile Asn Pro Asp 355 360 365
- Glu Ala Val Ala Tyr Gly Ala Ala Val Gln Ala Ala Val Leu Met Gly 370 375 380

Asp Lys Cys Glu Lys Val Gln Asp Leu Leu Leu Leu Asp Val Ala Pro 385 390 395 400

- Leu Ser Leu Gly Leu Glu Thr Ala Gly Gly Val Met Thr Thr Leu Ile 405 410 415
- Gln Arg Asn Ala Thr Ile Pro Thr Lys Gln Thr Gln Thr Phe Thr Thr 420 425 430
- Tyr Ser Asp Asn Gln Pro Gly Val Phe Ile Gln Val Tyr Glu Gly Glu
  435 440 445
- Arg Ala Met Thr Lys Asp Asn Asn Leu Leu Gly Arg Phe Glu Leu Ser 450 460
- Gly Ile Pro Pro Ala Pro Arg Gly Val Pro Gln Ile Glu Val Thr Phe 465 470 475 480
- Asp Ile Asp Ala Asn Gly Ile Leu Ser Val Thr Ala Thr Asp Arg Ser 485 490 495
- Thr Gly Lys Ala Asn Lys Ile Thr Ile Thr Asn Asp Lys Gly Arg Leu 500 505 510
- Ser Lys Glu Glu Val Glu Arg Met Val His Glu Ala Glu Gln Tyr Lys
  515 520 525
- Ala Glu Asp Glu Ala Gln Arg Asp Arg Val Ala Ala Lys Asn Ser Leu 530 535 540
- Glu Ala His Val Phe His Val Lys Gly Ser Leu Gln Glu Glu Ser Leu 545 550 555 560
- Arg Asp Lys Ile Pro Glu Glu Asp Arg Lys Met Gln Asp Lys Cys 565 570 575
- Arg Glu Val Leu Ala Trp Leu Glu His Asn Gln Leu Ala Glu Lys Glu 580 585 590
- Glu Tyr Glu His Gln Lys Arg Glu Leu Glu Gln Ile Cys Arg Pro Ile 595 600 605
- Phe Ser Arg Leu Tyr Gly Gly Pro Gly Val Pro Gly Gly Ser Ser Cys 610 620
- Gly Thr Gln Ala Arg Gln Gly Asp Pro Ser Thr Gly Pro Ile Ile Glu

625 630 635 640

Glu Val Asp

<210> 2957

<211> 565

<212> PRT

<213> Homo sapiens

<400> 2957

Met Ala Glu Gly Lys Ala Gly Gly Ala Ala Gly Leu Phe Ala Lys Gln
1 10 15

Val Gln Lys Lys Phe Ser Arg Ala Gln Glu Lys Val Leu Gln Lys Leu 20 25 30

Gly Lys Ala Val Glu Thr Lys Asp Glu Arg Phe Glu Gln Ser Ala Asn 35 40 45

Asn Phe Tyr Gln Gln Gln Ala Glu Gly His Lys Leu Tyr Lys Asp Leu 50 55 60

Lys Asn Phe Leu Ser Ala Val Lys Val Met His Glu Ser Ser Lys Arg 70 75 80

Val Ser Glu Thr Leu Gln Glu Ile Tyr Ser Ser Glu Trp Asp Gly His 85 90 95

Glu Glu Leu Lys Ala Ile Val Trp Asn Asn Asp Leu Leu Trp Glu Asp 100 105 110

Tyr Glu Glu Lys Leu Ala Asp Gln Ala Val Arg Thr Met Glu Ile Tyr 115 120 125

Val Ala Gln Phe Ser Glu Ile Lys Glu Arg Ile Ala Lys Arg Gly Arg 130 135 140

Lys Leu Val Asp Tyr Asp Ser Ala Arg His His Leu Glu Ala Val Gln 145 150 155 160

Asn Ala Lys Lys Lys Asp Glu Ala Lys Thr Ala Lys Ala Glu Glu Glu 165 170 175

Phe Asn Lys Ala Gln Thr Val Phe Glu Asp Leu Asn Gln Glu Leu Leu 180 185 190

Glu Glu Leu Pro Ile Leu Tyr Asn Ser Arg Ile Gly Cys Tyr Val Thr 195 200 205

- Ile Phe Gln Asn Ile Ser Asn Leu Arg Asp Val Phe Tyr Arg Glu Met 210 215 220
- Ser Lys Leu Asn His Asn Leu Tyr Glu Val Met Ser Lys Leu Glu Lys 225 230 235 240
- Gln His Ser Asn Lys Val Phe Val Val Lys Gly Leu Ser Ser Ser Ser 245 250 255
- Arg Arg Ser Leu Val Ile Ser Pro Pro Val Arg Thr Ala Thr Val Ser 260 265 270
- Ser Pro Leu Thr Ser Pro Thr Ser Pro Ser Thr Leu Ser Leu Lys Ser 275 280 285
- Glu Ser Glu Ser Val Ser Ala Thr Glu Asp Leu Ala Pro Asp Ala Ala 290 295 300
- Gln Gly Glu Asp Asn Ser Glu Ile Lys Glu Leu Leu Glu Glu Glu 305 310 315 320
- Ile Glu Lys Glu Gly Ser Glu Ala Ser Ser Glu Glu Asp Glu Pro 325 330 335
- Leu Pro Ala Cys Asn Gly Pro Ala Gln Ala Gln Pro Ser Pro Thr Thr 340 345 350
- Glu Arg Ala Lys Ser Gln Glu Glu Val Leu Pro Ser Ser Thr Thr Pro 355 360 365
- Ser Pro Gly Gly Ala Leu Ser Pro Ser Gly Gln Pro Ser Ser Ser Ala 370 375 380
- Thr Glu Val Val Leu Arg Thr Arg Thr Ala Ser Glu Gly Ser Glu Gln 385 390 395 400
- Pro Lys Lys Arg Ala Ser Ile Gln Arg Thr Ser Ala Pro Pro Ser Arg 405 410 415
- Pro Pro Pro Pro Arg Ala Thr Ala Ser Pro Arg Pro Ser Ser Gly Asn 420 425 430

Ile Pro Ser Ser Pro Thr Ala Ser Gly Gly Gly Ser Pro Thr Ser Pro
435 440 445

Arg Ala Ser Leu Gly Thr Gly Thr Ala Ser Pro Arg Thr Ser Leu Glu 450 455 460

Val Ser Pro Asn Pro Glu Pro Pro Glu Lys Pro Val Arg Thr Pro Glu 465 470 475 480

Ala Lys Glu Asn Glu Asn Ile His Asn Gln Asn Pro Glu Glu Leu Cys 485 490 495

Thr Ser Pro Thr Leu Met Thr Ser Gln Val Ala Ser Glu Pro Gly Glu
500 505 510

Ala Lys Lys Met Glu Asp Lys Glu Lys Asp Asn Lys Leu Ile Ser Ala 515 520 525

Asp Ser Ser Glu Gly Gln Asp Gln Leu Gln Val Ser Met Val Pro Glu 530 535 540

Asn Asn Asn Leu Thr Ala Pro Glu Pro Glu Glu Glu Val Ser Thr Ser 545 550 555 560

Glu Asn Pro Gln Leu 565

<210> 2958

<211> 349

<212> PRT

<213> Homo sapiens

<400> 2958

Met Glu Thr Pro Pro Val Asn Thr Ile Gly Glu Lys Asp Thr Ser Gln 1 5 10 15

Pro Gln Gln Glu Trp Glu Lys Asn Leu Arg Glu Asn Leu Asp Ser Val 20 25 30

Ile Gln Ile Arg Gln Gln Pro Arg Asp Pro Pro Thr Glu Thr Leu Glu 35 40 45

Leu Glu Val Ser Pro Asp Pro Ala Ser Gln Ile Leu Glu His Thr Gln 50 55 60

Gly Ala Glu Lys Leu Val Ala Glu Leu Glu Gly Asp Ser His Lys Ser 65 70 75 80

His Gly Ser Thr Ser Gln Met Pro Glu Ala Leu Gln Ala Ser Asp Leu 85 90 95

- Trp Tyr Cys Pro Asp Gly Ser Phe Val Lys Lys Ile Val Ile Arg Gly
  100 105 110
- His Gly Leu Asp Lys Pro Lys Leu Gly Ser Cys Cys Arg Val Leu Ala 115 120 125
- Leu Gly Phe Pro Phe Gly Ser Gly Pro Pro Glu Gly Trp Thr Glu Leu 130 135 140
- Thr Met Gly Val Gly Pro Trp Arg Glu Glu Thr Trp Gly Glu Leu Ile 145 150 155 160
- Glu Lys Cys Leu Glu Ser Met Cys Gln Gly Glu Glu Ala Glu Leu Gln 165 170 175
- Leu Pro Gly His Ser Gly Pro Pro Val Arg Leu Thr Leu Ala Ser Phe 180 185 190
- Thr Gln Gly Arg Asp Ser Trp Glu Leu Glu Thr Ser Glu Lys Glu Ala 195 200 205
- Leu Ala Arg Glu Glu Arg Ala Arg Gly Thr Glu Leu Phe Arg Ala Gly 210 215 220
- Asn Pro Glu Gly Ala Ala Arg Cys Tyr Gly Arg Ala Leu Arg Leu 225 230 235 240
- Leu Thr Leu Pro Pro Pro Gly Pro Pro Glu Arg Thr Val Leu His Ala 245 250 255
- Asn Leu Ala Ala Cys Gln Leu Leu Leu Gly Gln Pro Gln Leu Ala Ala 260 265 270
- Gln Ser Cys Asp Arg Val Leu Glu Arg Glu Pro Gly His Leu Lys Ala 275 280 285
- Leu Tyr Arg Arg Gly Val Ala Gln Ala Ala Leu Gly Asn Leu Glu Lys 290 295 300
- Ala Thr Ala Asp Leu Lys Lys Val Leu Ala Ile Asp Pro Lys Asn Arg 305 310 315 320

Ala Ala Gln Glu Glu Leu Gly Lys Val Val Ile Gln Gly Lys Asn Gln 325 330 335

Asp Ala Gly Leu Ala Gln Gly Leu Arg Lys Met Phe Gly 340 345

<210> 2959

<211> 620

<212> PRT

<213> Homo sapiens

<400> 2959

Met Asn Asn Phe Ile Leu Leu Glu Glu Gln Leu Ile Lys Lys Ser Gln 1 5 10 15

Gln Lys Arg Arg Thr Ser Pro Ser Asn Phe Lys Val Arg Phe Phe Val 20 25 30

Leu Thr Lys Ala Ser Leu Ala Tyr Phe Glu Asp Arg His Gly Lys Lys 35 40 45

Arg Thr Leu Lys Gly Ser Ile Glu Leu Ser Arg Ile Lys Cys Val Glu 50 60

Ile Val Lys Ser Asp Ile Ser Ile Pro Cys His Tyr Lys Tyr Pro Phe 65 70 75 80

Gln Val Val His Asp Asn Tyr Leu Leu Tyr Val Phe Ala Pro Asp Arg 85 90 95

Glu Ser Arg Gln Arg Trp Val Leu Ala Leu Lys Glu Glu Thr Arg Asn 100 105 110

Asn Asn Ser Leu Val Pro Lys Tyr His Pro Asn Phe Trp Met Asp Gly 115 120 125

Lys Trp Arg Cys Cys Ser Gln Leu Glu Lys Leu Ala Thr Gly Cys Ala 130 135 140

Gln Tyr Asp Pro Thr Lys Asn Ala Ser Lys Lys Pro Leu Pro Pro Thr 145 150 155 160

Pro Glu Asp Asn Arg Arg Pro Leu Trp Glu Pro Glu Glu Thr Val Val
165 170 175

Ile Ala Leu Tyr Asp Tyr Gln Thr Asn Asp Pro Gln Glu Leu Ala Leu

180 185 190

Arg Arg Asn Glu Glu Tyr Cys Leu Leu Asp Ser Ser Glu Ile His Trp 195 200 205

Trp Arg Val Gln Asp Arg Asn Gly His Glu Gly Tyr Val Pro Ser Ser 210 215 220

Tyr Leu Val Glu Lys Ser Pro Asn Asn Leu Glu Thr Tyr Glu Trp Tyr 225 230 235 240

Asn Lys Ser Ile Ser Arg Asp Lys Ala Glu Lys Leu Leu Leu Asp Thr 245 250 255

Gly Lys Glu Gly Ala Phe Met Val Arg Asp Ser Arg Thr Ala Gly Thr 260 265 270

Tyr Thr Val Ser Val Phe Thr Lys Ala Val Val Ser Glu Asn Asn Pro 275 280 285

Cys Ile Lys His Tyr His Ile Lys Glu Thr Asn Asp Asn Pro Lys Arg 290 295 300

Tyr Tyr Val Ala Glu Lys Tyr Val Phe Asp Ser Ile Pro Leu Leu Ile 305 310 315 320

Asn Tyr His Gln His Asn Gly Gly Gly Leu Val Thr Arg Leu Arg Tyr 325 330 335

Pro Val Cys Phe Gly Arg Gln Lys Ala Pro Val Thr Ala Gly Leu Arg 340 345 350

Tyr Gly Lys Trp Val Ile Asp Pro Ser Glu Leu Thr Phe Val Gln Glu 355 360 365

Ile Gly Ser Gly Gln Phe Gly Leu Val His Leu Gly Tyr Trp Leu Asn 370 375 380

Lys Asp Lys Val Ala Ile Lys Thr Ile Arg Glu Gly Ala Met Ser Glu 385 390 395 400

Glu Asp Phe Ile Glu Glu Ala Glu Val Met Met Lys Leu Ser His Pro 405 410 415

Lys Leu Val Gln Leu Tyr Gly Val Cys Leu Glu Gln Ala Pro Ile Cys 420 425 430

Leu Val Phe Glu Phe Met Glu His Gly Cys Leu Ser Asp Tyr Leu Arg 435 440 445

Thr Gln Arg Gly Leu Phe Ala Ala Glu Thr Leu Leu Gly Met Cys Leu 450 460

Asp Val Cys Glu Gly Met Ala Tyr Leu Glu Glu Ala Cys Val Ile His 465 470 475 480

Arg Asp Leu Ala Ala Arg Asn Cys Leu Val Gly Glu Asn Gln Val Ile 485 490 495

Lys Val Ser Asp Phe Gly Met Thr Arg Phe Val Leu Asp Asp Gln Tyr 500 505 510

Thr Ser Ser Thr Gly Thr Lys Phe Pro Val Lys Trp Ala Ser Pro Glu 515 520 525

Val Phe Ser Phe Ser Arg Tyr Ser Ser Lys Ser Asp Val Trp Ser Phe 530 540

Gly Val Leu Met Trp Glu Val Phe Ser Glu Gly Lys Ile Pro Tyr Glu 545 550 555 560

Asn Arg Ser Asn Ser Glu Val Val Glu Asp Ile Ser Thr Gly Phe Arg 565 570 575

Leu Tyr Lys Pro Arg Leu Ala Ser Thr His Val Tyr Gln Ile Met Asn 580 585 590

His Cys Trp Lys Glu Arg Pro Glu Asp Arg Pro Ala Phe Ser Arg Leu 595 600 605

Leu Arg Gln Leu Ala Glu Ile Ala Glu Ser Gly Leu 610 625

<210> 2960

<211> 262

<212> PRT

<213> Homo sapiens

<400> 2960

Met Asp Pro Arg Leu Ser Thr Val Arg Gln Thr Cys Cys Cys Phe Asn 1 5 10 15

Val Arg Ile Ala Thr Thr Ala Leu Ala Ile Tyr His Val Ile Met Ser 20 25 30

- Val Leu Phe Ile Glu His Ser Val Glu Val Ala His Gly Lys Ala 35 40 45
- Ser Cys Lys Leu Ser Gln Met Gly Tyr Leu Arg Ile Ala Asp Leu Ile 50 55 60
- Ser Ser Phe Leu Leu Ile Thr Met Leu Phe Ile Ile Ser Leu Ser Leu 65 70 75 80
- Leu Ile Gly Val Val Lys Asn Arg Glu Lys Tyr Leu Leu Pro Phe Leu 85 90 95
- Ser Leu Gln Ile Met Asp Tyr Leu Leu Cys Leu Leu Thr Leu Leu Gly
  100 105 110
- Ser Tyr Ile Glu Leu Pro Ala Tyr Leu Lys Leu Ala Ser Arg Ser Arg 115 120 125
- Ala Ser Ser Ser Lys Phe Pro Leu Met Thr Leu Gln Leu Leu Asp Phe 130 135 140
- Cys Leu Ser Ile Leu Thr Leu Cys Ser Ser Tyr Met Glu Val Pro Thr 145 150 155 160
- Tyr Leu Asn Phe Lys Ser Met Asn His Met Asn Tyr Leu Pro Ser Gln 165 170 175
- Glu Asp Met Pro His Asn Gln Phe Ile Lys Met Met Ile Ile Phe Ser 180 185 190
- Ile Ala Phe Ile Thr Val Leu Ile Phe Lys Val Tyr Met Phe Lys Cys
  195 200 205
- Val Trp Arg Cys Tyr Arg Leu Ile Lys Cys Met Asn Ser Val Glu Glu 210 215 220
- Lys Arg Asn Ser Lys Met Leu Gln Lys Val Val Leu Pro Ser Tyr Glu 225 230 235 240
- Glu Ala Leu Ser Leu Pro Ser Lys Thr Pro Glu Gly Gly Pro Ala Pro 245 250 255

Pro Pro Tyr Ser Glu Val

260

<210> 2961

<211> 467

<212> PRT

<213> Homo sapiens

<400> 2961

Met Gln Met Asp Asn Arg Leu Pro Pro Lys Lys Val Pro Gly Phe Cys

1 10 15

Ser Phe Arg Tyr Gly Leu Ser Phe Leu Val His Cys Cys Asn Val Ile 20 25 30

Ile Thr Ala Gln Arg Ala Cys Leu Asn Leu Thr Met Val Val Met Val 35 40 45

Asn Ser Thr Asp Pro His Gly Leu Pro Asn Thr Ser Thr Lys Lys Leu 50 55 60

Leu Asp Asn Ile Lys Asn Pro Met Tyr Asn Trp Ser Pro Asp Ile Gln 65 70 75 80

Gly Ile Ile Leu Ser Ser Thr Ser Tyr Gly Val Ile Ile Ile Gln Val 85 90 95

Pro Val Gly Tyr Phe Ser Gly Ile Tyr Ser Thr Lys Lys Met Ile Gly
100 105

Phe Ala Leu Cys Leu Ser Ser Val Leu Ser Leu Leu Ile Pro Pro Ala 115 120 125

Ala Gly Ile Gly Val Ala Trp Val Val Val Cys Arg Ala Val Gln Gly 130 135 140

Ala Ala Gln Gly Ile Val Ala Thr Ala Gln Phe Glu Ile Tyr Val Lys 150 155 160

Trp Ala Pro Pro Leu Glu Arg Gly Arg Leu Thr Ser Met Ser Thr Ser 165 170 175

Gly Phe Leu Leu Gly Pro Phe Ile Val Leu Leu Val Thr Gly Val Ile 180 185 190

Cys Glu Ser Leu Gly Trp Pro Met Val Phe Tyr Ile Phe Gly Ala Cys 195 200 205

Gly Cys Ala Val Cys Leu Leu Trp Phe Val Leu Phe Tyr Asp Asp Pro 210 215 220

- Lys Asp His Pro Cys Ile Ser Ile Ser Glu Lys Glu Tyr Ile Thr Ser 225 230 235 240
- Ser Leu Val Gln Gln Val Ser Ser Ser Arg Gln Ser Leu Pro Ile Lys 245 250 255
- Ala Ile Leu Lys Ser Leu Pro Val Trp Ala Ile Ser Ile Gly Ser Phe 260 265 270
- Thr Phe Phe Trp Ser His Asn Ile Met Thr Leu Tyr Thr Pro Met Phe 275 280 285
- Ile Asn Ser Met Leu His Val Asn Ile Lys Glu Asn Gly Phe Leu Ser 290 295 300
- Ser Leu Pro Tyr Leu Phe Ala Trp Ile Cys Gly Asn Leu Ala Gly Gln 305 310 315 320
- Leu Ser Asp Phe Phe Leu Thr Arg Asn Ile Leu Ser Val Ile Ala Val 325 330 335
- Arg Lys Leu Phe Thr Ala Ala Gly Phe Leu Leu Pro Ala Ile Phe Gly 340 345 350
- Val Cys Leu Pro Tyr Leu Ser Ser Thr Phe Tyr Ser Ile Val Ile Phe 355 360 365
- Leu Ile Leu Ala Gly Ala Thr Gly Ser Phe Cys Leu Gly Gly Val Phe 370 375 380
- Ile Asn Gly Leu Asp Ile Ala Pro Arg Tyr Phe Gly Phe Ile Lys Ala 385 390 395 400
- Cys Ser Thr Leu Thr Gly Met Ile Gly Gly Leu Ile Ala Ser Thr Leu 405 410 415
- Thr Gly Leu Ile Leu Lys Gln Asp Pro Glu Ser Ala Trp Phe Lys Thr 420 425 430
- Phe Ile Leu Met Ala Ala Ile Asn Val Thr Gly Leu Ile Phe Tyr Leu 435 440 445

Ile Val Ala Thr Ala Glu Ile Gln Asp Trp Ala Lys Glu Lys Gln His 450 455 460

Thr Arg Leu 465

<210> 2962

<211> 444

<212> PRT

<213> Homo sapiens

<400> 2962

Met Val Ser Gln Ala Leu Arg Leu Leu Cys Leu Leu Gly Leu Gln 1 5 10 15

Gly Cys Leu Ala Ala Val Phe Val Thr Gln Glu Glu Ala His Gly Val 20 25 30

Leu His Arg Arg Arg Ala Asn Ala Phe Leu Glu Glu Leu Arg Pro

Gly Ser Leu Glu Arg Glu Cys Lys Glu Glu Gln Cys Ser Phe Glu Glu 50 55 60

Ala Arg Glu Ile Phe Lys Asp Ala Glu Arg Thr Lys Leu Phe Trp Ile 65 70 75 80

Ser Tyr Ser Asp Gly Asp Gln Cys Ala Ser Ser Pro Cys Gln Asn Gly 85 90 95

Gly Ser Cys Lys Asp Gln Leu Gln Ser Tyr Ile Cys Phe Cys Leu Pro 100 105 110

Ala Phe Glu Gly Arg Asn Cys Glu Thr His Lys Asp Asp Gln Leu Ile 115 120 125

Cys Val Asn Glu Asn Gly Gly Cys Glu Gln Tyr Cys Ser Asp His Thr 130 135 140

Gly Thr Lys Arg Ser Cys Arg Cys His Glu Gly Tyr Ser Leu Leu Ala 150 155 160

Asp Gly Val Ser Cys Thr Pro Thr Val Glu Tyr Pro Cys Gly Lys Ile 165 170 175

Pro Ile Leu Glu Lys Arg Asn Ala Ser Lys Pro Gln Gly Arg Ile Val 180 185 190

Gly Gly Lys Val Cys Pro Lys Gly Glu Cys Pro Trp Gln Val Leu Leu 195 200 205

- Leu Val Asn Gly Ala Gln Leu Cys Gly Gly Thr Leu Ile Asn Thr Ile 210 215 220
- Trp Val Val Ser Ala Ala His Cys Phe Asp Lys Ile Lys Asn Trp Arg 225 230 235 240
- Asn Leu Ile Ala Val Leu Gly Glu His Asp Leu Ser Glu His Asp Gly
  245 250 255
- Asp Glu Gln Ser Arg Arg Val Ala Gln Val Ile Ile Pro Ser Thr Tyr 260 265 270
- Val Pro Gly Thr Thr Asn His Asp Ile Ala Leu Leu Arg Leu His Gln 275 280 285
- Pro Val Val Leu Thr Asp His Val Val Pro Leu Cys Leu Pro Glu Arg 290 295 300
- Thr Phe Ser Glu Arg Thr Leu Ala Phe Val Arg Phe Ser Leu Val Ser 305 310 315 320
- Gly Trp Gly Gln Leu Leu Asp Arg Gly Ala Thr Ala Leu Glu Leu Met 325 330 335
- Val Leu Asn Val Pro Arg Leu Met Thr Gln Asp Cys Leu Gln Gln Ser 340 345 350
- Arg Lys Val Gly Asp Ser Pro Asn Ile Thr Glu Tyr Met Phe Cys Ala 355 360 365
- Gly Tyr Ser Asp Gly Ser Lys Asp Ser Cys Lys Gly Asp Ser Gly Gly 370 380
- Pro His Ala Thr His Tyr Arg Gly Thr Trp Tyr Leu Thr Gly Ile Val 385 390 395 400
- Ser Trp Gly Gln Gly Cys Ala Thr Val Gly His Phe Gly Val Tyr Thr 405 410 415
- Arg Val Ser Gln Tyr Ile Glu Trp Leu Gln Lys Leu Met Arg Ser Glu
  420 425 430

Pro Arg Pro Gly Val Leu Leu Arg Ala Pro Phe Pro 435 440

<210> 2963

<211> 272

<212> PRT

<213> Homo sapiens

<400> 2963

Arg Cys Lys Pro Ile Ser Gly His Asn Ser Leu Phe Trp Tyr Arg Gln
1 10 15

Thr Met Met Arg Gly Leu Glu Leu Leu Ile Tyr Phe Asn Asn Asn Val 20 25 30

Pro Ile Asp Asp Ser Gly Met Pro Glu Asp Arg Phe Ser Ala Lys Met 35 40 45

Pro Asn Ala Ser Phe Ser Thr Leu Lys Ile Gln Pro Ser Glu Pro Arg 50 55 60

Asp Ser Ala Val Tyr Phe Cys Ala Ser Ser Phe Ser Thr Cys Ser Ala 65 70 75 80

Asn Tyr Gly Tyr Thr Phe Gly Ser Gly Thr Arg Leu Thr Val Val Glu 85 90 95

Asp Leu Asn Lys Val Phe Pro Pro Glu Val Ala Val Phe Glu Pro Ser 100 105 110

Glu Ala Glu Ile Ser His Thr Gln Lys Ala Thr Leu Val Cys Leu Ala 115 120 125

Thr Gly Phe Phe Pro Asp His Val Glu Leu Ser Trp Trp Val Asn Gly 130 135 140

Lys Glu Val His Ser Gly Val Ser Thr Asp Pro Gln Pro Leu Lys Glu 145 150 155 160

Gln Pro Ala Leu Asn Asp Ser Arg Tyr Cys Leu Ser Ser Arg Leu Arg 165 170 175

Val Ser Ala Thr Phe Trp Gln Asn Pro Arg Asn His Phe Arg Cys Gln
180 185 190

Val Gln Phe Tyr Gly Leu Ser Glu Asn Asp Glu Trp Thr Gln Asp Arg

195 200 205

Ala Lys Pro Val Thr Gln Ile Val Ser Ala Glu Ala Trp Gly Arg Ala 210 215 220

Asp Cys Gly Phe Thr Ser Val Ser Tyr Gln Gln Gly Val Leu Ser Ala 225 230 235 240

Thr Ile Leu Tyr Glu Ile Leu Leu Gly Lys Ala Thr Leu Tyr Ala Val 245 250 255

Leu Val Ser Ala Leu Val Leu Met Ala Met Val Lys Arg Lys Asp Phe 260 265 270

<210> 2964

<211> 276

<212> PRT

<213> Homo sapiens

<400> 2964

Met Tyr Arg Ile Ser Gln Leu Met Ser Thr Pro Val Ala Ser Ser Ser 1 5 10 15

Arg Leu Glu Arg Glu Tyr Ala Gly Glu Leu Ser Pro Thr Cys Ile Phe 20 25 30

Pro Ser Phe Thr Cys Asp Ser Leu Asp Gly Tyr His Ser Phe Glu Cys 35 40 45

Gly Ser Ile Asp Pro Leu Thr Gly Ser His Tyr Thr Cys Arg Arg Ser 50 55 60

Pro Arg Leu Leu Thr Asn Gly Tyr Tyr Ile Trp Thr Glu Asp Ser Phe 65 70 75 80

Leu Cys Asp Lys Asp Gly Asn Ile Thr Leu Asn Pro Ser Gln Thr Ser 85 90 95

Val Met Tyr Lys Glu Asn Leu Val Ser Thr Ser Lys Ser Trp Leu His

Gly Ser Ile Phe Gly Asp Ile Asn Ser Ser Pro Ser Glu Asp Asn Trp 115 120 125

Leu Lys Gly Thr Arg Arg Leu Asp Thr Asp His Cys Asn Gly Asn Ala 130 135 140

Asp Asp Leu Asp Cys Ser Ser Leu Thr Asp Asp Trp Glu Ser Gly Lys 145 150 155 160

Met Asn Ala Glu Ser Val Ile Thr Ser Ser Ser His Ile Ile Ser 165 170 175

Gln Pro Pro Gly Gly Asn Ser His Ser Leu Ser Leu Gln Ser Gln Leu 180 185 190

Thr Ala Ser Glu Arg Phe Gln Glu Asn Ser Ser Asp His Ser Glu Thr
195 200 205

Arg Leu Leu Gln Glu Val Phe Phe Gln Ala Ile Leu Leu Ala Val Cys 210 215 220

Leu Ile Thr Ser Ala Cys Ala Arg Trp Phe Met Gly Glu Ile Leu Ala 225 230 235 240

Ser Val Phe Thr Cys Ser Leu Met Ile Thr Val Ala Tyr Val Lys Ser 245 250 255

Leu Phe Leu Ser Leu Ala Ser Tyr Phe Lys Thr Thr Ala Cys Ala Arg
260 265 270

Phe Val Lys Ile 275

<210> 2965

<211> 133

<212> PRT

<213> Homo sapiens

<400> 2965

Met Val Leu Gln Thr Gln Val Phe Ile Ser Leu Leu Trp Ile Ser 1 5 10 15

Gly Ala Tyr Gly Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala 20 25 30

Val Ser Leu Gly Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser 35 40 45

Val Leu Tyr Ser Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln 50 55 60

Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg

65

70

75

80

Glu Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp 90

Phe Thr Leu Thr Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr 100 105

Tyr Cys Gln Gln Tyr Asp Thr Ile Pro Thr Phe Gly Gly Gly Thr Lys

Val Glu Ile Lys Arg 130

<210> 2966 <211> 369 <212> PRT <213> Homo sapiens

<400> 2966

Met Leu Lys Pro Ser Leu Pro Phe Thr Ser Leu Leu Phe Leu Gln Leu 5 10

Pro Leu Leu Gly Val Gly Leu Asn Thr Thr Ile Leu Thr Pro Asn Gly 25

Asn Glu Asp Thr Thr Ala Asp Phe Phe Leu Thr Thr Met Pro Thr Asp . 35 40

Ser Leu Ser Val Ser Thr Leu Pro Leu Pro Glu Val Gln Cys Phe Val 50

Phe Asn Val Glu Tyr Met Asn Cys Thr Trp Asn Ser Ser Ser Glu Pro

Gln Pro Thr Asn Leu Thr Leu His Tyr Trp Tyr Lys Asn Ser Asp Asn

Asp Lys Val Gln Lys Cys Ser His Tyr Leu Phe Ser Glu Glu Ile Thr

Ser Gly Cys Gln Leu Gln Lys Lys Glu Ile His Leu Tyr Gln Thr Phe

Val Val Gln Leu Gln Asp Pro Arg Glu Pro Arg Arg Gln Ala Thr Gln

Met Leu Lys Leu Gln Asn Leu Val Ile Pro Trp Ala Pro Glu Asn Leu 145 150 155 160

- Thr Leu His Lys Leu Ser Glu Ser Gln Leu Glu Leu Asn Trp Asn Asn 165 170 175
- Arg Phe Leu Asn His Cys Leu Glu His Leu Val Gln Tyr Arg Thr Asp 180 185 190
- Trp Asp His Ser Trp Thr Glu Gln Ser Val Asp Tyr Arg His Lys Phe
  195 200 205
- Ser Leu Pro Ser Val Asp Gly Gln Lys Arg Tyr Thr Phe Arg Val Arg 210 215 220
- Ser Arg Phe Asn Pro Leu Cys Gly Ser Ala Gln His Trp Ser Glu Trp 225 230 235 240
- Ser His Pro Ile His Trp Gly Ser Asn Thr Ser Lys Glu Asn Pro Phe 245 250 255
- Leu Phe Ala Leu Glu Ala Val Val Ile Ser Val Gly Ser Met Gly Leu 260 265 270
- Ile Ile Ser Leu Leu Cys Val Tyr Phe Trp Leu Glu Arg Thr Met Pro 275 280 285
- Arg Ile Pro Thr Leu Lys Asn Leu Glu Asp Leu Val Thr Glu Tyr His 290 295 300
- Gly Asn Phe Ser Ala Trp Ser Gly Val Ser Lys Gly Leu Ala Glu Ser 305 310 315 320
- Leu Gln Pro Asp Tyr Ser Glu Arg Leu Cys Leu Val Ser Glu Ile Pro 325 330 335
- Pro Lys Gly Gly Ala Leu Gly Glu Gly Pro Gly Ala Ser Pro Cys Asn 340 350
- Gln His Ser Pro Tyr Trp Ala Pro Pro Cys Tyr Thr Leu Lys Pro Glu 355 360 365

Thr

<210> 2967

<211> 323

<212> PRT

<213> Homo sapiens

<400> 2967

Met Ala Phe Ser Gly Ser Gln Ala Pro Tyr Leu Ser Pro Ala Val Pro 1 5 10 15

Phe Ser Gly Thr Ile Gln Gly Gly Leu Gln Asp Gly Leu Gln Ile Thr
20 25 30

Val Asn Gly Thr Val Leu Ser Ser Ser Gly Thr Arg Phe Ala Val Asn 35 40 45

Phe Gln Thr Gly Phe Ser Gly Asn Asp Ile Ala Phe His Phe Asn Pro 50 55 60

Arg Phe Glu Asp Gly Gly Tyr Val Val Cys Asn Thr Arg Gln Asn Gly 65 70 75 80

Ser Trp Gly Pro Glu Glu Arg Arg Thr His Met Pro Phe Gln Lys Gly 85 90 95

Met Pro Phe Asp Leu Cys Phe Leu Val Gln Ser Ser Asp Phe Lys Val 100 105 110

Met Val Asn Gly Ile Leu Phe Val Gln Tyr Phe His Arg Val Pro Phe 115 120 125

His Arg Val Asp Thr Ile Phe Val Asn Gly Ser Val Gln Leu Ser Tyr 130 135 140

Ile Ser Phe Gln Pro Pro Gly Val Trp Pro Ala Asn Pro Ala Pro Ile 145 150 155 160

Thr Gln Thr Val Ile His Thr Val Gln Ser Ala Pro Gly Gln Met Phe 165 170 175

Ser Thr Pro Ala Ile Pro Pro Met Met Tyr Pro His Pro Ala Tyr Pro 180 185 190

Met Pro Phe Ile Thr Thr Ile Leu Gly Gly Leu Tyr Pro Ser Lys Ser 195 200 205

Ile Leu Leu Ser Gly Thr Val Leu Pro Ser Ala Gln Arg Phe His Ile 210 215 220

Asn Leu Cys Ser Gly Asn His Ile Ala Phe His Leu Asn Leu Arg Phe 225 230 235 240

- Asp Glu Asn Ala Val Val Arg Asn Thr Gln Ile Asp Asn Ser Trp Gly 245 250 255
- Ser Glu Glu Arg Ser Leu Pro Arg Lys Met Pro Phe Val Arg Gly Gln 260 265 270
- Ser Phe Ser Val Trp Ile Leu Cys Gly Ala His Cys Leu Lys Val Ala 275 280 285
- Val Asp Gly Gln His Leu Phe Glu Tyr Tyr His Arg Leu Arg Asn Leu 290 295 300
- Pro Thr Ile Asn Arg Leu Glu Val Gly Gly Asp Ile Gln Leu Thr His 305 310 315 320

Val Gln Thr

<210> 2968

<211> 1866

<212> PRT

<213> Homo sapiens

<400> 2968

- Met Asp Pro Val Gly Leu Gln Leu Gly Asn Lys Asn Leu Trp Ser Cys

  1 10 15
- Leu Val Arg Leu Leu Thr Lys Asp Pro Glu Trp Leu Asn Ala Lys Met 20 25 30
- Lys Phe Phe Leu Pro Asn Thr Asp Leu Asp Ser Arg Asn Glu Thr Leu 35 40 45
- Asp Pro Glu Gln Arg Val Ile Leu Gln Leu Asn Lys Leu His Val Gln 50 55 60
- Gly Ser Asp Thr Trp Gln Ser Phe Ile His Cys Val Cys Met Gln Leu 65 70 75 80
- Glu Val Pro Leu Asp Leu Glu Val Leu Leu Leu Ser Thr Phe Gly Tyr 85 90 95

Asp Asp Gly Phe Thr Ser Gln Leu Gly Ala Glu Gly Lys Ser Gln Pro 100 105 110

- Glu Ser Gln Leu His His Gly Leu Lys Arg Pro His Gln Ser Cys Gly
  115 120 125
- Ser Ser Pro Arg Arg Lys Gln Cys Lys Gln Gln Leu Glu Leu Ala 130 135 140
- Lys Lys Tyr Leu Gln Leu Leu Arg Thr Ser Ala Gln Gln Arg Tyr Arg 145 150 155 160
- Ser Gln Ile Pro Gly Ser Gly Gln Pro His Ala Phe His Gln Val Tyr 165 170 175
- Val Pro Pro Ile Leu Arg Arg Ala Thr Ala Ser Leu Asp Thr Pro Glu 180 185 190
- Gly Ala Ile Met Gly Asp Val Lys Val Glu Asp Gly Ala Asp Val Ser 195 200 205
- Ile Ser Asp Leu Phe Asn Thr Arg Val Asn Lys Gly Pro Arg Val Thr 210 215 220
- Val Leu Leu Gly Lys Ala Gly Met Gly Lys Thr Thr Leu Ala His Arg 225 230 235 240
- Leu Cys Gln Lys Trp Ala Glu Gly His Leu Asn Cys Phe Gln Ala Leu 245 250 255
- Phe Leu Phe Glu Phe Arg Gln Leu Asn Leu Ile Thr Arg Phe Leu Thr 260 265 270
- Pro Ser Glu Leu Leu Phe Asp Leu Tyr Leu Ser Pro Glu Ser Asp His 275 280 285
- Asp Thr Val Phe Gln Tyr Leu Glu Lys Asn Ala Asp Gln Val Leu Leu 290 295 300
- Ile Phe Asp Gly Leu Asp Glu Ala Leu Gln Pro Met Gly Pro Asp Gly 305 310 315 320
- Pro Gly Pro Val Leu Thr Leu Phe Ser His Leu Cys Asn Gly Thr Leu 325 330 335
- Leu Pro Gly Cys Arg Val Met Ala Thr Ser Arg Pro Gly Lys Leu Pro

340 345 350

Ala Cys Leu Pro Ala Glu Ala Ala Met Val His Met Leu Gly Phe Asp 355 360 365

Gly Pro Arg Val Glu Glu Tyr Val Asn His Phe Phe Ser Ala Gln Pro 370 375 380

Ser Arg Glu Gly Ala Leu Val Glu Leu Gln Thr Asn Gly Arg Leu Arg 385 390 395 400

Ser Leu Cys Ala Val Pro Ala Leu Cys Gln Val Ala Cys Leu Cys Leu 405 410 415

His His Leu Leu Pro Asp His Ala Pro Gly Gln Ser Val Ala Leu Leu 420 425 430

Pro Asn Met Thr Gln Leu Tyr Met Gln Met Val Leu Ala Leu Ser Pro 435 440 445

Pro Gly His Leu Pro Thr Ser Ser Leu Leu Asp Leu Gly Glu Val Ala 450 455 460

Leu Arg Gly Leu Glu Thr Gly Lys Val Ile Phe Tyr Ala Lys Asp Ile 465 470 475 480

Ala Pro Pro Leu Ile Ala Phe Gly Ala Thr His Ser Leu Leu Thr Ser 485 490 495

Phe Cys Val Cys Thr Gly Pro Gly His Gln Gln Thr Gly Tyr Ala Phe 500 505 510

Thr His Leu Ser Leu Gln Glu Phe Leu Ala Ala Leu His Leu Met Ala 515 520 525

Ser Pro Lys Val Asn Lys Asp Thr Leu Thr Gln Tyr Val Thr Leu His 530 535 540

Ser Arg Trp Val Gln Arg Thr Lys Ala Arg Leu Gly Leu Ser Asp His 545 550 555 560

Leu Pro Thr Phe Leu Ala Gly Leu Ala Ser Cys Thr Cys Arg Pro Phe 565 570 575

Leu Ser His Leu Ala Gln Gly Asn Glu Asp Cys Val Gly Ala Lys Gln 580 585 590

- Ala Ala Val Val Gln Val Leu Lys Lys Leu Ala Thr Arg Lys Leu Thr 595 600 605

  Gly Pro Lys Val Val Glu Leu Cys His Cys Val Asp Glu Thr Gln Glu
- 610 615 620
- Pro Glu Leu Ala Ser Leu Thr Ala Gln Ser Leu Pro Tyr Gln Leu Pro 625 630 640
- Phe His Asn Phe Pro Leu Thr Cys Thr Asp Leu Ala Thr Leu Thr Asn 645 650 655
- Ile Leu Glu His Arg Glu Ala Pro Ile His Leu Asp Phe Asp Gly Cys 660 665 670
- Pro Leu Glu Pro His Cys Pro Glu Ala Leu Val Gly Cys Gly Gln Ile 675 680 685
- Glu Asn Leu Ser Phe Lys Ser Arg Lys Cys Gly Asp Ala Phe Ala Glu 690 695 700
- Ala Leu Ser Arg Ser Leu Pro Thr Met Gly Arg Leu Gln Met Leu Gly 705 710 715 720
- Leu Ala Gly Ser Lys Ile Thr Ala Arg Gly Ile Ser His Leu Val Lys
  725 730 735
- Ala Leu Pro Leu Cys Pro Gln Leu Lys Glu Val Ser Phe Arg Asp Asn 740 745 750
- Gln Leu Ser Asp Gln Val Val Leu Asn Ile Val Glu Val Leu Pro His 755 760 765
- Leu Pro Arg Leu Arg Lys Leu Asp Leu Ser Ser Asn Ser Ile Cys Val 770 775 780
- Ser Thr Leu Leu Cys Leu Ala Arg Val Ala Val Thr Cys Pro Thr Val 785 790 795 800
- Arg Met Leu Gln Ala Arg Glu Arg Thr Ile Ile Phe Leu Leu Ser Pro 805 810 815
- Pro Thr Glu Thr Thr Ala Glu Leu Gln Arg Ala Pro Asp Leu Gln Glu 820 825 830

Ser Asp Gly Gln Arg Lys Gly Ala Gln Ser Arg Ser Leu Thr Leu Arg 835 840 845

- Leu Gln Lys Cys Gln Leu Gln Val His Asp Ala Glu Ala Leu Ile Ala 850 855 860
- Leu Leu Gln Glu Gly Pro His Leu Glu Glu Val Asp Leu Ser Gly Asn 870 875 880
- Gln Leu Glu Asp Glu Gly Cys Arg Leu Met Ala Glu Ala Ala Ser Gln 885 890 895
- Leu His Ile Ala Arg Lys Leu Asp Leu Ser Asp Asn Gly Leu Ser Val 900 905 910
- Ala Gly Val His Cys Val Leu Arg Ala Val Ser Ala Cys Trp Thr Leu 915 920 925
- Ala Glu Leu His Ile Ser Leu Gln His Lys Thr Val Ile Phe Met Phe 930 940
- Ala Gln Glu Pro Glu Glu Gln Lys Gly Pro Gln Glu Arg Ala Ala Phe 945 950 955 960
- Leu Asp Ser Leu Met Leu Gln Met Pro Ser Glu Leu Pro Leu Ser Ser 965 970 975
- Arg Arg Met Arg Leu Thr His Cys Gly Leu Gln Glu Lys His Leu Glu 980 985 990
- Gln Leu Cys Lys Ala Leu Gly Gly Ser Cys His Leu Gly His Leu His 995 1000 1005
- Leu Asp Phe Ser Gly Asn Ala Leu Gly Asp Glu Gly Ala Ala Arg 1010 1015 1020
- Leu Ala Gln Leu Leu Pro Gly Leu Gly Ala Leu Gln Ser Leu Asn 1025 1030 1035
- Leu Ser Glu Asn Gly Leu Ser Leu Asp Ala Val Leu Gly Leu Val 1040 1050
- Arg Cys Phe Ser Thr Leu Gln Trp Leu Phe Arg Leu Asp Ile Ser 1055 1060 1065

Phe	Glu 1070	Ser	Gln	His	Ile	Leu 1075	Leu	Arg	Gly	Asp	Lys 1080	Thr	Ser	Arg
Asp	Met 1085	Trp	Ala	Thr	Gly	Ser 1090	Leu	Pro	Asp	Phe	Pro 1095	Ala	Ala	Ala
Lys	Phe 1100	Leu	Gly	Phe	Arg	Gln 1105		Cys	Ile	Pro	Arg 1110		Leu	Сув
Leu	Ser 1115	Glu	Cys	Pro	Leu	Glu 1120	Pro	Pro	Ser	Leu	Thr 1125	Arg	Leu	Cys
Ala	Thr 1130	Leu	Lys	Asp	Cys	Pro 1135		Pro	Leu	Glu	Leu 1140	Gln	Leu	Ser
Сув	Glu 1145	Phe	Leu	Ser	Asp	Gln 1150	Ser	Leu	Glu	Thr	Leu 1155	Leu	Asp	Cys
Leu	Pro 1160	Gln	Leu	Pro	Gln	Leu 1165		Leu	Leu	Gln	Leu 1170	Ser	Gln	Thr
Gly	Leu 1175	Ser	Pro	Lys	Ser	Pro 1180		Leu	Leu	Ala	Asn 1185	Thr	Leu	Ser
Leu	Cys 1190		Arg	Val	Lys	Lys 1195		Asp	Leu	Arg	Ser 1200		His	His
Ala	Thr 1205		His	Phe	Arg	Ser 1210		Glu	Glu	Glu	Glu 1215		Val	Суѕ
Cys	Gly 1220			Thr		Cys 1225		Leu			Glu 1230		Val	Glu
Ser	Leu 1235	_	Trp	Leu	Leu	Ser 1240		Суз	Lys	Asp	Leu 1245		Gln	Val
Asp	Leu 1250		Ala	Asn	Leu	Leu 1255	_	Asp	Ser	Gly	Leu 1260		Суз	Leu
Leu	Glu 1265	-	Leu	Pro	Gln	Val 1270		Ile	Ser	Gly	Leu 1275		Asp	Leu
Ser	His 1280		Ser	Ile	Ser	Gln 1285		Ser	Ala	Leu	Tyr 1290		Leu	Glu
Thr	Leu	Pro	Ser	Cys	Pro	Arg	Val	Arg	Glu	Ala	Ser	Val	Asn	Leu

1295 1300 1305

Gly	Ser	Glu	Gln	Ser	Phe	Arg	Ile	His	Phe	Ser	Arg	Glu	Asp	Gln
	1310					1315					1320			

- Ala Gly Lys Thr Leu Arg Leu Ser Glu Cys Ser Phe Arg Pro Glu 1325 1330 1335
- His Val Ser Arg Leu Ala Thr Gly Leu Ser Lys Ser Leu Gln Leu 1340 1345 1350
- Thr Glu Leu Thr Leu Thr Gln Cys Cys Leu Gly Gln Lys Gln Leu 1355 1360 1365
- Ala Ile Leu Leu Ser Leu Val Gly Arg Pro Ala Gly Leu Phe Ser 1370 1375 1380
- Leu Arg Val Gln Glu Pro Trp Ala Asp Arg Ala Arg Val Leu Ser 1385 1390 1395
- Leu Leu Glu Val Cys Ala Gln Ala Ser Gly Ser Val Thr Glu Ile 1400 1405 1410
- Ser Ile Ser Glu Thr Gln Gln Gln Leu Cys Val Gln Leu Glu Phe 1415 1420 1425
- Pro Arg Gln Glu Glu Asn Pro Glu Ala Val Ala Leu Arg Leu Ala 1430 1435 1440
- His Cys Asp Leu Gly Ala His His Ser Leu Leu Val Gly Gln Leu 1445 1450 1455
- Met Glu Thr Cys Ala Arg Leu Gln Gln Leu Ser Leu Ser Gln Val 1460 1465 1470
- Asn Leu Cys Glu Asp Asp Asp Ala Ser Ser Leu Leu Leu Gln Ser 1475 1480 1485
- Leu Leu Leu Ser Leu Ser Glu Leu Lys Thr Phe Arg Leu Thr Ser 1490 1495 1500
- Ser Cys Val Ser Thr Glu Gly Leu Ala His Leu Ala Ser Gly Leu 1505 1510 1515
- Gly His Cys His His Leu Glu Glu Leu Asp Leu Ser Asn Asn Gln 1520 1525 1530

.

Phe	Asp 1535	Glu	Glu	Gly	Thr	Lys 1540	Ala	Leu	Met	Arg	Ala 1545	Leu	Glu	Gly
Lys	Trp 1550	Met	Leu	Lys	Arg	Leu 1555	Asp	Leu	Ser	His	Leu 1560	Leu	Leu	Asn
Ser	Ser 1565	Thr	Leu	Ala	Leu	Leu 1570	Thr	His	Arg	Leu	Ser 1575	Gln	Met	Thr
Сув	Leu 1580		Ser	Leu	Arg	Leu 1585		Arg	Asn	Ser	Ile 1590	Gly	Asp	Val
Gly	Cys 1595	_	His	Leu	Ser	Glu 1600		Leu	Arg	Ala	Ala 1605	Thr	Ser	Leu
Glu	Glu 1610		Asp	Leu	Ser	His 1615		Gln	Ile	Gly	Asp 1620		Gly	Val
Gln	His 1625		Ala	Thr	Ile	Leu 1630		Gly	Leu	Pro	Glu 1635		Arg	Lys
Ile	Asp 1640		Ser	Gly	Asn	Ser 1645		Ser	Ser	Ala	Gly 1650		Val	Gln
Leu	Ala 1655		Ser	Leu	Val	Leu 1660		Arg	Arg	Leu	Glu 1665		Leu	Met
Leu	Gly 1670		Asn	Ala	Leu	Gly 1675		Pro	Thr	Ala	Leu 1680		Leu	Ala
											Leu 1695		Phe	Ser
His	Leu 1700	_	Pro	Gly	Gly	Ala 1705		Ser	Leu	Ala	Gln 1710		Leu	Asp
Gly	Ser 1715		His	Leu	Glu	Glu 1720		Ser	Leu	Ala	Glu 1725		Asn	Leu
Ala	Gly 1730	_	Val	Leu	Arg	Phe 1735		Met	Glu	Leu	Pro 1740		Leu	Arg
Gln	Ile 1745		Leu	Val	Ser	Cys 1750		Ile	Asp	Asn	Gln 1755	Thr	Ala	Lys

Leu Leu Thr Ser Ser Phe Thr Ser Cys Pro Ala Leu Glu Val Ile 1760 1765 1770

- Leu Leu Ser Trp Asn Leu Leu Gly Asp Glu Ala Ala Ala Glu Leu 1775 1780 1785
- Ala Gln Val Leu Pro Lys Met Gly Arg Leu Lys Arg Val Asp Leu 1790 1795 1800
- Glu Lys Asn Gln Ile Thr Ala Leu Gly Ala Trp Leu Leu Ala Glu 1805 1810 1815
- Gly Leu Ala Gln Gly Ser Ser Ile Gln Val Ile Arg Leu Trp Asn 1820 1825 1830
- Asn Pro Ile Pro Cys Asp Met Ala Gln His Leu Lys Ser Gln Glu 1835 1840 1845
- Pro Arg Leu Asp Phe Ala Phe Phe Asp Asn Gln Pro Gln Ala Pro 1850 1855 1860

Trp Gly Thr 1865

<210> 2969

<211> 547

<212> PRT

<213> Homo sapiens

<400> 2969

- Met Ala Thr Met Val Pro Ser Val Leu Trp Pro Arg Ala Cys Trp Thr 1 5 10 15
- Leu Leu Val Cys Cys Leu Leu Thr Pro Gly Val Gln Glu Phe 20 25 30
- Leu Leu Arg Val Glu Pro Gln Asn Pro Val Leu Ser Ala Gly Gly Ser 35 40 45
- Leu Phe Val Asn Cys Ser Thr Asp Cys Pro Ser Ser Glu Lys Ile Ala 50 55 60
- Leu Glu Thr Ser Leu Ser Lys Glu Leu Val Ala Ser Gly Met Gly Trp 65 70 75 80
- Ala Ala Phe Asn Leu Ser Asn Val Thr Gly Asn Ser Arg Ile Leu Cys

95

90

85

Ser Val Tyr Cys Asn Gly Ser Gln Ile Thr Gly Ser Ser Asn Ile Thr

Val Tyr Gly Leu Pro Glu Arg Val Glu Leu Ala Pro Leu Pro Pro Trp 115 120 125

Gln Pro Val Gly Gln Asn Phe Thr Leu Arg Cys Gln Val Glu Gly Gly 130 135 140

Ser Pro Arg Thr Ser Leu Thr Val Val Leu Leu Arg Trp Glu Glu Glu 145 150 155 160

Leu Ser Arg Gln Pro Ala Val Glu Glu Pro Ala Glu Val Thr Ala Thr 165 170 175

Val Leu Ala Ser Arg Asp Asp His Gly Ala Pro Phe Ser Cys Arg Thr 180 185 190

Glu Leu Asp Met Gln Pro Gln Gly Leu Gly Leu Phe Val Asn Thr Ser 195 200 205

Ala Pro Arg Gln Leu Arg Thr Phe Val Leu Pro Val Thr Pro Pro Arg 210 215 220

Leu Val Ala Pro Arg Phe Leu Glu Val Glu Thr Ser Trp Pro Val Asp 225 230 235 240

Cys Thr Leu Asp Gly Leu Phe Pro Ala Ser Glu Ala Gln Val Tyr Leu 245 250 255

Ala Leu Gly Asp Gln Met Leu Asn Ala Thr Val Met Asn His Gly Asp 260 265 270

Thr Leu Thr Ala Thr Ala Thr Ala Thr Ala Arg Ala Asp Gln Glu Gly 275 280 285

Ala Arg Glu Ile Val Cys Asn Val Thr Leu Gly Gly Glu Arg Arg Glu 290 295 300

Ala Arg Glu Asn Leu Thr Val Phe Ser Phe Leu Gly Pro Ile Val Asn 305 310 315 320

Leu Ser Glu Pro Thr Ala His Glu Gly Ser Thr Val Thr Val Ser Cys 325 330 335

PCT/US2003/012946 WO 2004/042346

Met Ala Gly Ala Arg Val Gln Val Thr Leu Asp Gly Val Pro Ala Ala

Ala Pro Gly Gln Pro Ala Gln Leu Gln Leu Asn Ala Thr Glu Ser Asp 360

Asp Gly Arg Ser Phe Phe Cys Ser Ala Thr Leu Glu Val Asp Gly Glu 375

Phe Leu His Arg Asn Ser Ser Val Gln Leu Arg Val Leu Tyr Gly Pro 390

Lys Ile Asp Arg Ala Thr Cys Pro Gln His Leu Lys Trp Lys Asp Lys 410 405

Thr Arg His Val Leu Gln Cys Gln Ala Arg Gly Asn Pro Tyr Pro Glu 420 425

Leu Arg Cys Leu Lys Glu Gly Ser Ser Arg Glu Val Pro Val Gly Ile 435 440

Pro Phe Phe Val Asn Val Thr His Asn Gly Thr Tyr Gln Cys Gln Ala 455

Ser Ser Ser Arg Gly Lys Tyr Thr Leu Val Val Val Met Asp Ile Glu 470 475

Ala Gly Ser Ser His Phe Val Pro Val Phe Val Ala Val Leu Leu Thr 485 490

Leu Gly Val Val Thr Ile Val Leu Ala Leu Met Tyr Val Phe Arg Glu 500

His Gln Arg Ser Gly Ser Tyr His Val Arg Glu Glu Ser Thr Tyr Leu 520 515

Pro Leu Thr Ser Met Gln Pro Thr Glu Ala Met Gly Glu Glu Pro Ser 535 530

Arg Ala Glu 545

<210> 2970 <211> 260

<212> PRT

<213> Homo sapiens

<400> 2970

Met Arg Pro Glu Asp Arg Met Phe His Ile Arg Ala Val Ile Leu Arg 1 5 10 15

Ala Leu Ser Leu Ala Phe Leu Leu Ser Leu Arg Gly Ala Gly Ala Ile 20 25 30

Lys Ala Asp His Val Ser Thr Tyr Ala Ala Phe Val Gln Thr His Arg
35 40 45

Pro Thr Gly Glu Phe Met Phe Glu Phe Asp Glu Asp Glu Met Phe Tyr 50 55 60

Val Asp Leu Asp Lys Lys Glu Thr Val Trp His Leu Glu Glu Phe Gly 65 70 75 80

Gln Ala Phe Ser Phe Glu Ala Gln Gly Gly Leu Ala Asn Ile Ala Ile 85 90 95

Leu Asn Asn Leu Asn Thr Leu Ile Gln Arg Ser Asn His Thr Gln
100 105 110

Ala Thr Asn Asp Pro Pro Glu Val Thr Val Phe Pro Lys Glu Pro Val

Glu Leu Gly Gln Pro Asn Thr Leu Ile Cys His Ile Asp Lys Phe Phe 130 135 140

Pro Pro Val Leu Asn Val Thr Trp Leu Cys Asn Gly Glu Leu Val Thr 145 150 155 160

Glu Gly Val Ala Glu Ser Leu Phe Leu Pro Arg Thr Asp Tyr Ser Phe 165 170 175

His Lys Phe His Tyr Leu Thr Phe Val Pro Ser Ala Glu Asp Phe Tyr 180 185 190

Asp Cys Arg Val Glu His Trp Gly Leu Asp Gln Pro Leu Leu Lys His 195 200 205

Trp Glu Ala Gln Glu Pro Ile Gln Met Pro Glu Thr Thr Glu Thr Val 210 215 220

Leu Cys Ala Leu Gly Leu Val Leu Gly Leu Val Gly Ile Ile Val Gly

235 230 240 225

Thr Val Leu Ile Ile Lys Ser Leu Arg Ser Gly His Asp Pro Arg Ala 250 245

Gln Gly Thr Leu 260

<210> 2971 <211> 495 <212> PRT

<213> Homo sapiens

<400> 2971

Met Pro Met Gly Ser Leu Gln Pro Leu Ala Thr Leu Tyr Leu Leu Gly

Met Leu Val Ala Ser Cys Leu Gly Arg Leu Ser Trp Tyr Asp Pro Asp 25

Phe Gln Ala Arg Leu Thr Arg Ser Asn Ser Lys Cys Gln Gly Gln Leu 40

Glu Val Tyr Leu Lys Asp Gly Trp His Met Val Cys Ser Gln Ser Trp

Gly Arg Ser Ser Lys Gln Trp Glu Asp Pro Ser Gln Ala Ser Lys Val

Cys Gln Arg Leu Asn Cys Gly Val Pro Leu Ser Leu Gly Pro Phe Leu

Val Thr Tyr Thr Pro Gln Ser Ser Ile Ile Cys Tyr Gly Gln Leu Gly 100 105

Ser Phe Ser Asn Cys Ser His Ser Arg Asn Asp Met Cys His Ser Leu 115 120

Gly Leu Thr Cys Leu Glu Pro Gln Lys Thr Thr Pro Pro Thr Thr Arg 130 135

Pro Pro Pro Thr Thr Pro Glu Pro Thr Ala Pro Pro Arg Leu Gln 145 150

Leu Val Ala Gln Ser Gly Gly Gln His Cys Ala Gly Val Val Glu Phe 165 170

Tyr Ser Gly Ser Leu Gly Gly Thr Ile Ser Tyr Glu Ala Gln Asp Lys 180 185 190

- Thr Gln Asp Leu Glu Asn Phe Leu Cys Asn Asn Leu Gln Cys Gly Ser 195 200 205
- Phe Leu Lys His Leu Pro Glu Thr Glu Ala Gly Arg Ala Gln Asp Pro 210 215 220
- Gly Glu Pro Arg Glu His Gln Pro Leu Pro Ile Gln Trp Lys Ile Gln 225 230 235 240
- Asn Ser Ser Cys Thr Ser Leu Glu His Cys Phe Arg Lys Ile Lys Pro
- Gln Lys Ser Gly Arg Val Leu Ala Leu Leu Cys Ser Gly Phe Gln Pro 260 265 270
- Lys Val Gln Ser Arg Leu Val Gly Gly Ser Ser Ile Cys Glu Gly Thr 275 280 285
- Val Glu Val Arg Gln Gly Ala Gln Trp Ala Ala Leu Cys Asp Ser Ser 290 295 300
- Ser Ala Arg Ser Ser Leu Arg Trp Glu Glu Val Cys Arg Glu Gln Gln 305 310 315 320
- Cys Gly Ser Val Asn Ser Tyr Arg Val Leu Asp Ala Gly Asp Pro Thr 325 330 335
- Ser Arg Gly Leu Phe Cys Pro His Gln Lys Leu Ser Gln Cys His Glu 340 345 350
- Leu Trp Glu Arg Asn Ser Tyr Cys Lys Lys Val Phe Val Thr Cys Gln 355 360 365
- Asp Pro Asn Pro Ala Gly Leu Ala Ala Gly Thr Val Ala Ser Ile Ile 370 380
- Leu Ala Leu Val Leu Leu Val Val Leu Leu Val Val Cys Gly Pro Leu 385 390 395 400
- Ala Tyr Lys Lys Leu Val Lys Lys Phe Arg Gln Lys Lys Gln Arg Gln 405 410 415

Trp Ile Gly Pro Thr Gly Met Asn Gln Asn Met Ser Phe His Arg Asn 420 425 430

His Thr Ala Thr Val Arg Ser His Ala Glu Asn Pro Thr Ala Ser His 435 440 445

Val Asp Asn Glu Tyr Ser Gln Pro Pro Arg Asn Ser Arg Leu Ser Ala 450 455 460

Tyr Pro Ala Leu Glu Gly Val Leu His Arg Ser Ser Met Gln Pro Asp 465 470 475 480

Asn Ser Ser Asp Ser Asp Tyr Asp Leu His Gly Ala Gln Arg Leu 485 490 495

<210> 2972

<211> 130

<212> PRT

<213> Homo sapiens

<400> 2972

Lys Val Phe Glu Arg Cys Glu Leu Ala Arg Thr Leu Lys Arg Leu Gly
1 5 10 15

Met Asp Gly Tyr Arg Gly Ile Ser Leu Ala Asn Trp Met Cys Leu Ala 20 25 30

Lys Trp Glu Ser Gly Tyr Asn Thr Arg Ala Thr Asn Tyr Asn Ala Gly 35 40 45

Asp Arg Ser Thr Asp Tyr Gly Ile Phe Gln Ile Asn Ser Arg Tyr Trp 50 55 60

Cys Asn Asp Gly Lys Thr Pro Gly Ala Val Asn Ala Cys His Leu Ser 65 70 75 80

Cys Ser Ala Leu Leu Gln Asp Asn Ile Ala Asp Ala Val Ala Cys Ala 85 90 95

Lys Arg Val Val Arg Asp Pro Gln Gly Ile Arg Ala Trp Val Ala Trp
100 105 110

Arg Asn Arg Cys Gln Asn Arg Asp Val Arg Gln Tyr Val Gln Gly Cys 115 120 125

Gly Val

130

- <210> 2973
- <211> 491 <212> PRT
- <213> Homo sapiens
- <400> 2973
- Met Asn Pro Ala Ala Glu Ala Glu Phe Asn Ile Leu Leu Ala Thr Asp 5 10
- Ser Tyr Lys Val Thr His Tyr Lys Gln Tyr Pro Pro Asn Thr Ser Lys 20 25
- Val Tyr Ser Tyr Phe Glu Cys Arg Glu Lys Lys Thr Glu Asn Ser Lys 35 40
- Leu Arg Lys Val Lys Tyr Glu Glu Thr Val Phe Tyr Gly Leu Gln Tyr 50 55
- Ile Leu Asn Lys Tyr Leu Lys Gly Lys Val Val Thr Lys Glu Lys Ile 70
- Gln Glu Ala Lys Asp Val Tyr Lys Glu His Phe Gln Asp Asp Val Phe 85
- Asn Glu Lys Gly Trp Asn Tyr Ile Leu Glu Lys Tyr Asp Gly His Leu 110 - -100
- Pro Ile Glu Ile Lys Ala Val Pro Glu Gly Phe Val Ile Pro Arg Gly 120
- Asn Val Leu Phe Thr Val Glu Asn Thr Asp Pro Glu Cys Tyr Trp Leu
- Thr Asn Trp Ile Glu Thr Ile Leu Val Gln Ser Trp Tyr Pro Ile Thr
- Val Ala Thr Asn Ser Arg Glu Gln Lys Lys Ile Leu Ala Lys Tyr Leu
- Leu Glu Thr Ser Gly Asn Leu Asp Gly Leu Glu Tyr Lys Leu His Asp 185
- Phe Gly Tyr Arg Gly Val Ser Ser Gln Glu Thr Ala Gly Ile Gly Ala 200 195

Ser Ala His Leu Val Asn Phe Lys Gly Thr Asp Thr Val Ala Gly Leu 210 215 220

- Ala Leu Ile Lys Lys Tyr Tyr Gly Thr Lys Asp Pro Val Pro Gly Tyr 225 230 235 240
- Ser Val Pro Ala Ala Glu His Ser Thr Ile Thr Ala Trp Gly Lys Asp 245 250 255
- His Glu Lys Asp Ala Phe Glu His Ile Val Thr Gln Phe Ser Ser Val 260 265 270
- Pro Val Ser Val Val Ser Asp Ser Tyr Asp Ile Tyr Asn Ala Cys Glu 275 280 285
- Lys Ile Trp Gly Glu Asp Leu Arg His Leu Ile Val Ser Arg Ser Thr 290 295 300
- Gln Ala Pro Leu Ile Ile Arg Pro Asp Ser Gly Asn Pro Leu Asp Thr 305 310 315 320
- Val Leu Lys Val Leu Glu Ile Leu Gly Lys Lys Phe Pro Val Thr Glu 325 330 335
- Asn Ser Lys Gly Tyr Lys Leu Leu Pro Pro Tyr Leu Arg Val Ile Gln 340 345 350
- Gly Asp Gly Val Asp Ile Asn Thr Leu Gln Glu Ile Val Glu Gly Met 355 360 365
- Lys Gln Lys Met Trp Ser Ile Glu Asn Ile Ala Phe Gly Ser Gly Gly 370 375 380
- Gly Leu Leu Gln Lys Leu Thr Arg Asp Leu Leu Asn Cys Ser Phe Lys 385 390 395 400
- Cys Ser Tyr Val Val Thr Asn Gly Leu Gly Ile Asn Val Phe Lys Asp 405 410 415
- Pro Val Ala Asp Pro Asn Lys Arg Ser Lys Lys Gly Arg Leu Ser Leu 420 425 430
- His Arg Thr Pro Ala Gly Asn Phe Val Thr Leu Glu Glu Gly Lys Gly 435 440 445
- Asp Leu Glu Glu Tyr Gly Gln Asp Leu Leu His Thr Val Phe Lys Asn

460

450 455

Gly Lys Val Thr Lys Ser Tyr Ser Phe Asp Glu Ile Arg Lys Asn Ala 465 470 475 480

Gln Leu Asn Ile Glu Leu Glu Ala Ala His His 485 490

<210> 2974

<211> 862

<212> PRT

<213> Homo sapiens

<400> 2974

Met Glu Arg Ala Glu Ser Ser Ser Thr Glu Pro Ala Lys Ala Ile Lys 1 5 10 15

Pro Ile Asp Arg Lys Ser Val His Gln Ile Cys Ser Gly Gln Val Val 20 25 30

Leu Ser Leu Ser Thr Ala Val Lys Glu Leu Val Glu Asn Ser Leu Asp 35 40 45

Ala Gly Ala Thr Asn Ile Asp Leu Lys Leu Lys Asp Tyr Gly Val Asp 50 55 60

Leu Ile Glu Val Ser Asp Asn Gly Cys Gly Val Glu Glu Glu Asn-Phe-65 70 75 80

Glu Gly Leu Thr Leu Lys His His Thr Ser Lys Ile Gln Glu Phe Ala 85 90 95

Asp Leu Thr Gln Val Glu Thr Phe Gly Phe Arg Gly Glu Ala Leu Ser 100 105 110

Ser Leu Cys Ala Leu Ser Asp Val Thr Ile Ser Thr Cys His Ala Ser

Ala Lys Val Gly Thr Arg Leu Met Phe Asp His Asn Gly Lys Ile Ile 130 135 140

Gln Lys Thr Pro Tyr Pro Arg Pro Arg Gly Thr Thr Val Ser Val Gln 145 150 155 160

Gln Leu Phe Ser Thr Leu Pro Val Arg His Lys Glu Phe Gln Arg Asn 165 170 175

Ile Lys Lys Glu Tyr Ala Lys Met Val Gln Val Leu His Ala Tyr Cys 180 185 190

- Ile Ile Ser Ala Gly Ile Arg Val Ser Cys Thr Asn Gln Leu Gly Gln
  195 200 205
- Gly Lys Arg Gln Pro Val Val Cys Thr Gly Gly Ser Pro Ser Ile Lys 210 220
- Glu Asn Ile Gly Ser Val Phe Gly Gln Lys Gln Leu Gln Ser Leu Ile 225 230 235 240
- Pro Phe Val Gln Leu Pro Pro Ser Asp Ser Val Cys Glu Glu Tyr Gly 245 250 255
- Leu Ser Cys Ser Asp Ala Leu His Asn Leu Phe Tyr Ile Ser Gly Phe 260 265 270
- Ile Ser Gln Cys Thr His Gly Val Gly Arg Ser Ser Thr Asp Arg Gln 275 280 285
- Phe Phe Phe Ile Asn Arg Arg Pro Cys Asp Pro Ala Lys Val Cys Arg 290 295 300
- Leu Val Asn Glu Val Tyr His Met Tyr Asn Arg His Gln Tyr Pro Phe 305 310 315 320
- Val Val Leu Asn Ile Ser Val Asp Ser Glu Cys Val Asp Ile Asn Val 325 330 335
- Thr Pro Asp Lys Arg Gln Ile Leu Leu Gln Glu Glu Lys Leu Leu 340 345 350
- Ala Val Leu Lys Thr Ser Leu Ile Gly Met Phe Asp Ser Asp Val Asn 355 360 365
- Lys Leu Asn Val Ser Gln Gln Pro Leu Leu Asp Val Glu Gly Asn Leu 370 380
- Ile Lys Met His Ala Ala Asp Leu Glu Lys Pro Met Val Glu Lys Gln 385 390 395 400
- Asp Gln Ser Pro Ser Leu Arg Thr Gly Glu Glu Lys Lys Asp Val Ser 405 410 415

Ile Ser Arg Leu Arg Glu Ala Phe Ser Leu Arg His Thr Thr Glu Asn 420 425 430

- Lys Pro His Ser Pro Lys Thr Pro Glu Pro Arg Arg Ser Pro Leu Gly
  435 440 445
- Gln Lys Arg Gly Met Leu Ser Ser Ser Thr Ser Gly Ala Ile Ser Asp 450 455 460
- Lys Gly Val Leu Arg Pro Gln Lys Glu Ala Val Ser Ser Ser His Gly 465 470 475 480
- Pro Ser Asp Pro Thr Asp Arg Ala Glu Val Glu Lys Asp Ser Gly His
  485 490 495
- Gly Ser Thr Ser Val Asp Ser Glu Gly Phe Ser Ile Pro Asp Thr Gly 500 505 510
- Ser His Cys Ser Ser Glu Tyr Ala Ala Ser Ser Pro Gly Asp Arg Gly 515 520 525
- Ser Gln Glu His Val Asp Ser Gln Glu Lys Ala Pro Glu Thr Asp Asp 530 535 540
- Ser Phe Ser Asp Val Asp Cys His Ser Asn Gln Glu Asp Thr Gly Cys 545 550 555 560
- Lys Phe Arg Val Leu Pro Gln Pro Thr Asn Leu Ala Thr Pro Asn Thr 565 570 575
- Lys Arg Phe Lys Lys Glu Glu Ile Leu Ser Ser Asp Ile Cys Gln 580 585 590
- Lys Leu Val Asn Thr Gln Asp Met Ser Ala Ser Gln Val Asp Val Ala 595 600 605
- Val Lys Ile Asn Lys Lys Val Val Pro Leu Asp Phe Ser Met Ser Ser 610 615 620
- Leu Ala Lys Arg Ile Lys Gln Leu His His Glu Ala Gln Gln Ser Glu 625 630 635 640
- Gly Glu Gln Asn Tyr Arg Lys Phe Arg Ala Lys Ile Cys Pro Gly Glu 645 650 655
- Asn Gln Ala Ala Glu Asp Glu Leu Arg Lys Glu Ile Ser Lys Thr Met

660 665 670

Phe Ala Glu Met Glu Ile Ile Gly Gln Phe Asn Leu Gly Phe Ile Ile 675 680 685

Thr Lys Leu Asn Glu Asp Ile Phe Ile Val Asp Gln His Ala Thr Asp 690 695 700

Glu Lys Tyr Asn Phe Glu Met Leu Gln Gln His Thr Val Leu Gln Gly
705 710 715 720

Gln Arg Leu Ile Ala Pro Gln Thr Leu Asn Leu Thr Ala Val Asn Glu
725 730 735

Ala Val Leu Ile Glu Asn Leu Glu Ile Phe Arg Lys Asn Gly Phe Asp 740 745 750

Phe Val Ile Asp Glu Asn Ala Pro Val Thr Glu Arg Ala Lys Leu Ile 755 760 765

Ser Leu Pro Thr Ser Lys Asn Trp Thr Phe Gly Pro Gln Asp Val Asp 770 775 780

Glu Leu Ile Phe Met Leu Ser Asp Ser Pro Gly Val Met Cys Arg Pro 785 790 795 800

Ser Arg Val Lys Gln Met Phe Ala Ser Arg Ala Cys Arg Lys Ser Val

Met Ile Gly Thr Ala Leu Asn Thr Ser Glu Met Lys Lys Leu Ile Thr 820 825 830

His Met Gly Glu Met Asp His Pro Trp Asn Cys Pro His Gly Arg Pro 835 840 845

Thr Met Arg His Ile Ala Asn Leu Gly Val Ile Ser Gln Asn 850 855 860

<210> 2975

<211> 1256

<212> PRT

<213> Homo sapiens

<400> 2975

Met Tyr Leu Trp Leu Lys Leu Leu Ala Phe Gly Phe Ala Phe Leu Asp 1 5 10 15 Thr Glu Val Phe Val Thr Gly Gln Ser Pro Thr Pro Ser Pro Thr Gly 20 25 30

- Leu Thr Thr Ala Lys Met Pro Ser Val Pro Leu Ser Ser Asp Pro Leu 35 40 45
- Pro Thr His Thr Thr Ala Phe Ser Pro Ala Ser Thr Phe Glu Arg Glu 50 55 60
- Asn Asp Phe Ser Glu Thr Thr Thr Ser Leu Ser Pro Asp Asn Thr Ser 65 70 75 80
- Thr Gln Val Ser Pro Asp Ser Leu Asp Asn Ala Ser Ala Phe Asn Thr 85 90 95
- Thr Gly Val Ser Ser Val Gln Thr Pro His Leu Pro Thr His Ala Asp 100 105 110
- Ser Gln Thr Pro Ser Ala Gly Thr Asp Thr Gln Thr Phe Ser Gly Ser 115 120 125
- Ala Ala Asn Ala Lys Leu Asn Pro Thr Pro Gly Ser Asn Ala Ile Ser 130 135 140
- Asp Ala Tyr Leu Asn Ala Ser Glu Thr Thr Thr Leu Ser Pro Ser Gly 145 150 155 160
- Ser Ala Val Ile Ser Thr Thr Thr Ile Ala Thr Thr Pro Ser Lys Pro 165 170 175
- Thr Cys Asp Glu Lys Tyr Ala Asn Ile Thr Val Asp Tyr Leu Tyr Asn 180 185 190
- Lys Glu Thr Lys Leu Phe Thr Ala Lys Leu Asn Val Asn Glu Asn Val 195 200 205
- Glu Cys Gly Asn Asn Thr Cys Thr Asn Asn Glu Val His Asn Leu Thr 210 215 220
- Glu Cys Lys Asn Ala Ser Val Ser Ile Ser His Asn Ser Cys Thr Ala 225 230 235 240
- Pro Asp Lys Thr Leu Ile Leu Asp Val Pro Pro Gly Val Glu Lys Phe 245 250 255

Gln Leu His Asp Cys Thr Gln Val Glu Lys Ala Asp Thr Thr Ile Cys 260 265 270

Leu Lys Trp Lys Asn Ile Glu Thr Phe Thr Cys Asp Thr Gln Asn Ile 275 280 285

Thr Tyr Arg Phe Gln Cys Gly Asn Met Ile Phe Asp Asn Lys Glu Ile 290 295 300

Lys Leu Glu Asn Leu Glu Pro Glu His Glu Tyr Lys Cys Asp Ser Glu 305 310 315 320

Ile Leu Tyr Asn Asn His Lys Phe Thr Asn Ala Ser Lys Ile Ile Lys 325 330 335

Thr Asp Phe Gly Ser Pro Gly Glu Pro Gln Ile Ile Phe Cys Arg Ser 340 345 350

Glu Ala Ala His Gln Gly Val Ile Thr Trp Asn Pro Pro Gln Arg Ser 355 360 365

Phe His Asn Phe Thr Leu Cys Tyr Ile Lys Glu Thr Glu Lys Asp Cys 370 375 380

Leu Asn Leu Asp Lys Asn Leu Ile Lys Tyr Asp Leu Gln Asn Leu Lys 385 390 395 400

Pro Tyr Thr Lys Tyr Val Leu Ser Leu His Ala Tyr Ile Ile Ala Lys 405 410 415

Val Gln Arg Asn Gly Ser Ala Ala Met Cys His Phe Thr Thr Lys Ser 420 425 430

Ala Pro Pro Ser Gln Val Trp Asn Met Thr Val Ser Met Thr Ser Asp 435 440 445

Asn Ser Met His Val Lys Cys Arg Pro Pro Arg Asp Arg Asn Gly Pro 450 460

His Glu Arg Tyr His Leu Glu Val Glu Ala Gly Asn Thr Leu Val Arg
465 470 475 480

Asn Glu Ser His Lys Asn Cys Asp Phe Arg Val Lys Asp Leu Gln Tyr 485 490 495

Ser Thr Asp Tyr Thr Phe Lys Ala Tyr Phe His Asn Gly Asp Tyr Pro

500 505 510

Gly Glu Pro Phe Ile Leu His His Ser Thr Ser Tyr Asn Ser Lys Ala 515 520 525

Leu Ile Ala Phe Leu Ala Phe Leu Ile Ile Val Thr Ser Ile Ala Leu 530 535 540

Leu Val Val Leu Tyr Lys Ile Tyr Asp Leu His Lys Lys Arg Ser Cys 545 550 555 560

Asn Leu Asp Glu Gln Gln Glu Leu Val Glu Arg Asp Asp Glu Lys Gln 565 570 575

Leu Met Asn Val Glu Pro Ile His Ala Asp Ile Leu Leu Glu Thr Tyr 580 585 590

Lys Arg Lys Ile Ala Asp Glu Gly Arg Leu Phe Leu Ala Glu Phe Gln 595 600 605

Ser Ile Pro Arg Val Phe Ser Lys Phe Pro Ile Lys Glu Ala Arg Lys 610 615 620

Pro Phe Asn Gln Asn Lys Asn Arg Tyr Val Asp Ile Leu Pro Tyr Asp 625 630 635 640

Tyr Asn Arg Val Glu Leu Ser Glu Ile Asn Gly Asp Ala Gly Ser Asn 645 650 655

Tyr Ile Asn Ala Ser Tyr Ile Asp Gly Phe Lys Glu Pro Arg Lys Tyr
660 665 670

Ile Ala Ala Gln Gly Pro Arg Asp Glu Thr Val Asp Asp Phe Trp Arg 675 680 685

Met Ile Trp Glu Gln Lys Ala Thr Val Ile Val Met Val Thr Arg Cys 690 695 700

Glu Glu Gly Asn Arg Asn Lys Cys Ala Glu Tyr Trp Pro Ser Met Glu 705 710 715 720

Glu Gly Thr Arg Ala Phe Gly Asp Val Val Val Lys Ile Asn Gln His 725 730 735

Lys Arg Cys Pro Asp Tyr Ile Ile Gln Lys Leu Asn Ile Val Asn Lys
740 745 750

Lys Glu Lys Ala Thr Gly Arg Glu Val Thr His Ile Gln Phe Thr Ser 755 760 765

- Trp Pro Asp His Gly Val Pro Glu Asp Pro His Leu Leu Leu Lys Leu 770 775 780
- Arg Arg Arg Val Asn Ala Phe Ser Asn Phe Phe Ser Gly Pro Ile Val 785 790 795 800
- Val His Cys Ser Ala Gly Val Gly Arg Thr Gly Thr Tyr Ile Gly Ile 805 810 815
- Asp Ala Met Leu Glu Gly Leu Glu Ala Glu Asn Lys Val Asp Val Tyr 820 825 830
- Gly Tyr Val Val Lys Leu Arg Arg Gln Arg Cys Leu Met Val Gln Val 835 840 845
- Glu Ala Gln Tyr Ile Leu Ile His Gln Ala Leu Val Glu Tyr Asn Gln 850 855 860
- Phe Gly Glu Thr Glu Val Asn Leu Ser Glu Leu His Pro Tyr Leu His 865 870 875 880
- Asn Met Lys Lys Arg Asp Pro Pro Ser Glu Pro Ser Pro Leu Glu Ala 885 890 895
- Glu Phe Gln Arg Leu Pro Ser Tyr Arg Ser Trp Arg Thr Gln His Ile 900 905 910
- Gly Asn Gln Glu Glu Asn Lys Ser Lys Asn Arg Asn Ser Asn Val Ile 915 920 925
- Pro Tyr Asp Tyr Asn Arg Val Pro Leu Lys His Glu Leu Glu Met Ser 930 935 940
- Lys Glu Ser Glu His Asp Ser Asp Glu Ser Ser Asp Asp Ser Asp 945 950 955 960
- Ser Glu Glu Pro Ser Lys Tyr Ile Asn Ala Ser Phe Ile Met Ser Tyr 965 970 975
- Trp Lys Pro Glu Val Met Ile Ala Ala Gln Gly Pro Leu Lys Glu Thr 980 985 990

Ile Gly Asp Phe Trp Gln Met Ile Phe Gln Arg Lys Val Lys Val Ile 995 1000 1005

- Val Met Leu Thr Glu Leu Lys His Gly Asp Gln Glu Ile Cys Ala 1010 1015 1020
- Gln Tyr Trp Gly Glu Gly Lys Gln Thr Tyr Gly Asp Ile Glu Val 1025 1030 1035
- Asp Leu Lys Asp Thr Asp Lys Ser Ser Thr Tyr Thr Leu Arg Val 1040 1045 1050
- Phe Glu Leu Arg His Ser Lys Arg Lys Asp Ser Arg Thr Val Tyr 1055 1060 1065
- Gln Tyr Gln Tyr Thr Asn Trp Ser Val Glu Gln Leu Pro Ala Glu 1070 1080
- Pro Lys Glu Leu Ile Ser Met Ile Gln Val Val Lys Gln Lys Leu 1085 1090 1095
- Pro Gln Lys Asn Ser Ser Glu Gly Asn Lys His His Lys Ser Thr 1100 1105 1110
- Pro Leu Leu Ile His Cys Arg Asp Gly Ser Gln Gln Thr Gly Ile 1115 1120 1125
- Phe Cys Ala Leu Leu Asn Leu Leu Glu Ser Ala Glu Thr Glu Glu 1130 1135 1140
- Val Val Asp Ile Phe Gln Val Val Lys Ala Leu Arg Lys Ala Arg 1145 1150 1155
- Pro Gly Met Val Ser Thr Phe Glu Gln Tyr Gln Phe Leu Tyr Asp 1160 1165 1170
- Val Ile Ala Ser Thr Tyr Pro Ala Gln Asn Gly Gln Val Lys Lys 1175 1180 1185
- Asn Asn His Gln Glu Asp Lys Ile Glu Phe Asp Asn Glu Val Asp 1190 1195 1200
- Lys Val Lys Gln Asp Ala Asn Cys Val Asn Pro Leu Gly Ala Pro 1205 1210 1215

Glu Lys Leu Pro Glu Ala Lys Glu Gln Ala Glu Gly Ser Glu Pro 1220 1225 1230

Thr Ser Gly Thr Glu Gly Pro Glu His Ser Val Asn Gly Pro Ala 1235 1240 1245

Ser Pro Ala Leu Asn Gln Gly Ser 1250 1255

<210> 2976

<211> 319

<212> PRT

<213> Homo sapiens

<400> 2976

Met Lys Met Ala Ser Ser Leu Ala Phe Leu Leu Leu Asn Phe His Val 1 5 10 15

Ser Leu Leu Val Gln Leu Leu Thr Pro Cys Ser Ala Gln Phe Ser 20 25 30

Val Leu Gly Pro Ser Gly Pro Ile Leu Ala Met Val Gly Glu Asp Ala 35 40 45

Asp Leu Pro Cys His Leu Phe Pro Thr Met Ser Ala Glu Thr Met Glu 50 55 60

Leu Lys Trp Val Ser Ser Ser Leu Arg Gln Val Val Asn Val Tyr Ala 65 70 75 80

Asp Gly Lys Glu Val Glu Asp Arg Gln Ser Ala Pro Tyr Arg Gly Arg 85 90 95

Thr Ser Ile Leu Arg Asp Gly Ile Thr Ala Gly Lys Ala Ala Leu Arg
100 105 110

Ile His Asn Val Thr Ala Ser Asp Ser Gly Lys Tyr Leu Cys Tyr Phe
115 120 125

Gln Asp Gly Asp Phe Tyr Glu Lys Ala Leu Val Glu Leu Lys Val Ala 130 135 140

Ala Leu Gly Ser Asn Leu His Val Glu Val Lys Gly Tyr Glu Asp Gly
145 150 155 160

Gly Ile His Leu Glu Cys Arg Ser Thr Gly Trp Tyr Pro Gln Pro Gln 165 170 175

1376

Ile Gln Trp Ser Asn Ala Lys Gly Glu Asn Ile Pro Ala Val Glu Ala 180 185 190

- Pro Val Val Ala Asp Gly Val Gly Leu Tyr Glu Val Ala Ala Ser Val 195 200 205
- Ile Met Arg Gly Gly Ser Gly Glu Gly Val Ser Cys Ile Ile Arg Asn 210 215 220
- Ser Leu Leu Gly Leu Glu Lys Thr Ala Ser Ile Ser Ile Ala Asp Pro 225 230 235 240
- Phe Phe Arg Ser Ala Gln Pro Trp Ile Ala Ala Leu Ala Gly Thr Leu 245 250 255
- Pro Ile Leu Leu Leu Leu Ala Gly Ala Ser Tyr Phe Leu Trp Arg 260 265 270
- Gln Gln Lys Glu Ile Thr Ala Leu Ser Ser Glu Ile Glu Ser Glu Gln 275 280 285
- Glu Met Lys Glu Met Gly Tyr Ala Ala Thr Glu Arg Glu Ile Ser Leu 290 295 300
- Arg Glu Ser Leu Gln Glu Glu Leu Lys Arg Lys Lys Ser Ser Thr 305 310 315
- <210> 2977
- <211> 240
- <212> PRT
- <213> Homo sapiens
- <400> 2977
- Met Leu Leu Gln Ser Gln Thr Met Gly Val Ser His Ser Phe Thr Pro 1 5 10 15
- Lys Gly Ile Thr Ile Pro Gln Arg Glu Lys Pro Gly His Met Tyr Gln 20 25 30
- Asn Glu Asp Tyr Leu Gln Asn Gly Leu Pro Thr Glu Thr Thr Val Leu 35 40 45
- Gly Thr Val Gln Ile Leu Cys Cys Leu Leu Ile Ser Ser Leu Gly Ala 50 55 60

Ile Leu Val Phe Ala Pro Tyr Pro Ser His Phe Asn Pro Ala Ile Ser 65 70 75 80

Thr Thr Leu Met Ser Gly Tyr Pro Phe Leu Gly Ala Leu Cys Phe Gly 85 90 95

Ile Thr Gly Ser Leu Ser Ile Ile Ser Gly Lys Gln Ser Thr Lys Pro 100 105 110

Phe Asp Leu Ser Ser Leu Thr Ser Asn Ala Val Ser Ser Val Thr Ala 115 120 125

Gly Ala Gly Leu Phe Leu Leu Ala Asp Ser Met Val Ala Leu Arg Thr 130 135 140

Ala Ser Gln His Cys Gly Ser Glu Met Asp Tyr Leu Ser Ser Leu Pro 145 150 155 160

Tyr Ser Glu Tyr Tyr Tyr Pro Ile Tyr Glu Ile Lys Asp Cys Leu Leu 165 170 175

Thr Ser Val Ser Leu Thr Gly Val Leu Val Val Met Leu Ile Phe Thr 180 185 190

Val Leu Glu Leu Leu Ala Ala Tyr Ser Ser Val Phe Trp Trp Lys 195 200 205

Gln Leu Tyr Ser Asn Asn Pro Gly Ser Ser Phe Ser Ser Thr Gln Ser 210 215 220

Gln Asp His Ile Gln Gln Val Lys Lys Ser Ser Ser Arg Ser Trp Ile 225 230 235 240

<210> 2978

<211> 266

<212> PRT

<213> Homo sapiens

<400> 2978

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Ser Leu Ala Ala Leu Thr 1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Arg Leu Ala Phe Ala Gly Asp Thr

Arg Pro Arg Phe Leu Glu Leu Arg Lys Ser Glu Cys His Phe Phe Asn 35 40 45

Gly Thr Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu 50 55 60

Glu Phe Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr 65 75 80

Glu Leu Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Leu 85 90 95

Leu Glu Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr 100 105 110

Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His Pro Gln Val

Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His Asn Leu Leu 130 135 140

Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp
145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser Thr Gly Leu 165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr 180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser 195 200 205

Val Thr Ser Ala Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala 210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu 225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His 245 250 255

Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser 260 265

<210> 2979

<211> 325

<212> PRT

<213> Homo sapiens

<400> 2979

Met Pro Ile Thr Arg Met Arg Met Arg Pro Trp Leu Glu Met Gln Ile 1 5 10 15

Asn Ser Asn Gln Ile Pro Gly Leu Ile Trp Ile Asn Lys Glu Glu Met 20 25 30

Ile Phe Gln Ile Pro Trp Lys His Ala Ala Lys His Gly Trp Asp Ile 35 40 45

Asn Lys Asp Ala Cys Leu Phe Arg Ser Trp Ala Ile His Thr Gly Arg
50 55 60

Tyr Lys Ala Gly Glu Lys Glu Pro Asp Pro Lys Thr Trp Lys Ala Asn 70 75 80

Phe Arg Cys Ala Met Asn Ser Leu Pro Asp Ile Glu Glu Val Lys Asp 85 90 95

Gln Ser Arg Asn Lys Gly Ser Ser Ala Val Arg Val Tyr Arg Met Leu 100 105 110

Pro Pro Leu Thr Lys Asn Gln Arg Lys Glu Arg Lys Ser Lys Ser Ser 115 120 . 125

Arg Asp Ala Lys Ser Lys Ala Lys Arg Lys Ser Cys Gly Asp Ser Ser 130 140

Pro Asp Thr Phe Ser Asp Gly Leu Ser Ser Ser Thr Leu Pro Asp Asp 145 150 155 160

His Ser Ser Tyr Thr Val Pro Gly Tyr Met Gln Asp Leu Glu Val Glu 165 170 175

Gln Ala Leu Thr Pro Ala Leu Ser Pro Cys Ala Val Ser Ser Thr Leu 180 185 190

Pro Asp Trp His Ile Pro Val Glu Val Val Pro Asp Ser Thr Ser Asp 195 200 205

Leu Tyr Asn Phe Gln Val Ser Pro Met Pro Ser Thr Ser Glu Ala Thr 210 220

Thr Asp Glu Asp Glu Glu Gly Lys Leu Pro Glu Asp Ile Met Lys Leu

225 230 235 240

Leu Glu Gln Ser Glu Trp Gln Pro Thr Asn Val Asp Gly Lys Gly Tyr 245 250 255

Leu Leu Asn Glu Pro Gly Val Gln Pro Thr Ser Val Tyr Gly Asp Phe 260 265 270

Ser Cys Lys Glu Glu Pro Glu Ile Asp Ser Pro Gly Gly Asp Ile Gly 275 280 285

Leu Ser Leu Gln Arg Val Phe Thr Asp Leu Lys Asn Met Asp Ala Thr 290 295 300

Trp Leu Asp Ser Leu Leu Thr Pro Val Arg Leu Pro Ser Ile Gln Ala 305 310 315 320

Ile Pro Cys Ala Pro 325

<210> 2980

<211> 132

<212> PRT

<213> Homo sapiens

<400> 2980

Met Glu Phe Asp Leu Asn Gly Asn Gly Asp Ile Gly Glu Lys Arg Val 1 5 10 15

Ile Cys Gly Gly Arg Val Val Cys Arg Pro Lys Lys Thr Glu Val Ser 20 25 30

Pro Thr Cys Ser Ile Pro His Asp Leu Gly Gly Pro Pro Thr Thr 35 40 45

Val Gly Gly Arg Arg Met Gly Met Arg Lys Trp Glu Arg Arg Glu Arg 50 55 60

Val Ser Pro Pro Ser Pro His Pro His Pro Leu Pro Pro Asp Ile Met 65 70 75 80

Ser Leu Lys Arg Met Leu Glu Lys Leu Gly Val Pro Lys Thr His Leu 85 90 95

Glu Leu Lys Lys Leu Ile Gly Glu Val Ser Ser Gly Ser Gly Glu Thr 100 105 110

Phe Ser Tyr Pro Asp Phe Leu Arg Met Met Leu Gly Lys Arg Ser Ala 115 120 125

Ile Leu Lys Met 130

<210> 2981

<211> 319

<212> PRT

<213> Homo sapiens

<400> 2981

Met Thr Asn Ser Ser Phe Phe Cys Pro Val Tyr Lys Asp Leu Glu Pro 1 5 10 15

Phe Thr Tyr Phe Phe Tyr Leu Val Phe Leu Val Gly Ile Ile Gly Ser 20 25 30

Cys Phe Ala Thr Trp Ala Phe Ile Gln Lys Asn Thr Asn His Arg Cys
35 40 45

Val Ser Ile Tyr Leu Ile Asn Leu Leu Thr Ala Asp Phe Leu Leu Thr 50 55 60

Leu Ala Leu Pro Val Lys Ile Val Val Asp Leu Gly Val Ala Pro Trp 65 70 75 80

Lys Leu Lys Ile Phe His Cys Gln Val Thr Ala Cys Leu Ile Tyr Ile 85 90 95

Asn Met Tyr Leu Ser Ile Ile Phe Leu Ala Phe Val Ser Ile Asp Arg
100 105 110

Cys Leu Gln Leu Thr His Ser Cys Lys Ile Tyr Arg Ile Gln Glu Pro 115 120 125

Gly Phe Ala Lys Met Ile Ser Thr Val Val Trp Leu Met Val Leu Leu 130 135 140

Ile Met Val Pro Asn Met Met Ile Pro Ile Lys Asp Ile Lys Glu Lys 145 150 155 160

Ser Asn Val Gly Cys Met Glu Phe Lys Lys Glu Phe Gly Arg Asn Trp 165 170 175

His Leu Leu Thr Asn Phe Ile Cys Val Ala Ile Phe Leu Asn Phe Ser

180 185 190

Ala Ile Ile Leu Ile Ser Asn Cys Leu Val Ile Arg Gln Leu Tyr Arg 195 200 205

Asn Lys Asp Asn Glu Asn Tyr Pro Asn Val Lys Lys Ala Leu Ile Asn 210 215 220

Ile Leu Leu Val Thr Thr Gly Tyr Ile Ile Cys Phe Val Pro Tyr His 225 230 235 240

Ile Val Arg Ile Pro Tyr Thr Leu Ser Gln Thr Glu Val Ile Thr Asp 245 250 255

Cys Ser Thr Arg Ile Ser Leu Phe Lys Ala Lys Glu Ala Thr Leu Leu 260 265 270

Leu Ala Val Ser Asn Leu Cys Phe Asp Pro Ile Leu Tyr Tyr His Leu 275 280 285

Ser Lys Ala Phe Arg Ser Lys Val Thr Glu Thr Phe Ala Ser Pro Lys 290 295 300

Glu Thr Lys Ala Gln Lys Glu Lys Leu Arg Cys Glu Asn Asn Ala 305 310 315

<210> 2982

<211> 334

<212> PRT

<213> Homo sapiens

<400> 2982

Met Leu Thr Lys Pro Leu Gln Gly Pro Pro Ala Pro Pro Gly Thr Pro 1 5 10 15

Thr Pro Pro Gly Gly Lys Asp Arg Glu Ala Phe Glu Ala Glu Tyr 20 25 30

Arg Leu Gly Pro Leu Leu Gly Lys Gly Gly Phe Gly Thr Val Phe Ala 35 40 45

Gly His Arg Leu Thr Asp Arg Leu Gln Val Ala Ile Lys Val Ile Pro 50 55 60

Arg Asn Arg Val Leu Gly Trp Ser Pro Leu Ser Asp Ser Val Thr Cys 70 75 80

Pro Leu Glu Val Ala Leu Leu Trp Lys Val Gly Ala Gly Gly His 85 90 95

- Pro Gly Val Ile Arg Leu Leu Asp Trp Phe Glu Thr Gln Glu Gly Phe 100 105 110
- Met Leu Val Leu Glu Arg Pro Leu Pro Ala Gln Asp Leu Phe Asp Tyr 115 120 125
- Ile Thr Glu Lys Gly Pro Leu Gly Glu Gly Pro Ser Arg Cys Phe Phe 130 135 140
- Gly Gln Val Val Ala Ala Ile Gln His Cys His Ser Arg Gly Val Val
  145 150 155 160
- His Arg Asp Ile Lys Asp Glu Asn Ile Leu Ile Asp Leu Arg Arg Gly 165 170 175
- Cys Ala Lys Leu Ile Asp Phe Gly Ser Gly Ala Leu Leu His Asp Glu 180 185 190
- Pro Tyr Thr Asp Phe Asp Gly Thr Arg Val Tyr Ser Pro Pro Glu Trp
  195 200 205
- Ile Ser Arg His Gln Tyr His Ala Leu Pro Ala Thr Val Trp Ser Leu 210 215 220
- Gly Ile Leu Leu Tyr Asp Met Val Cys Gly Asp Ile Pro Phe Glu Arg 225 230 235 240
- Asp Gln Glu Ile Leu Glu Ala Glu Leu His Phe Pro Ala His Val Ser 245 250 255
- Pro Asp Cys Cys Ala Leu Ile Arg Arg Cys Leu Ala Pro Lys Pro Ser 260 265 270
- Ser Arg Pro Ser Leu Glu Glu Ile Leu Leu Asp Pro Trp Met Gln Thr 275 280 285
- Pro Ala Glu Asp Val Thr Pro Gln Pro Leu Gln Arg Arg Pro Cys Pro 290 295 300
- Phe Gly Leu Val Leu Ala Thr Leu Ser Leu Ala Trp Pro Gly Leu Ala 305 310 315 320

Pro Asn Gly Gln Lys Ser His Pro Met Ala Met Ser Gln Gly 325 330

<210> 2983

<211> 158

<212> PRT

<213> Homo sapiens

<400> 2983

Met Met Gln Lys Leu Leu Lys Cys Ser Arg Leu Val Leu Ala Leu Ala 1 5 10 15

Leu Ile Leu Val Leu Glu Ser Ser Val Gln Gly Tyr Pro Thr Gln Arg
20 25 30

Ala Arg Tyr Gln Trp Val Arg Cys Asn Pro Asp Ser Asn Ser Ala Asn 35 40 45

Cys Leu Glu Glu Lys Gly Pro Met Phe Glu Leu Pro Gly Glu Ser 50 55 60

Asn Lys Ile Pro Arg Leu Arg Thr Asp Leu Phe Pro Lys Thr Arg Ile 65 70 75 80

Gln Asp Leu Asn Arg Ile Phe Pro Leu Ser Glu Asp Tyr Ser Gly Ser 85 90 95

Gly Phe Gly Ser Gly Ser Gly Ser Gly Ser Gly Ser Gly Phe 100 105 110

Leu Thr Glu Met Glu Gln Asp Tyr Gln Leu Val Asp Glu Ser Asp Ala 115 120 125

Phe His Asp Asn Leu Arg Ser Leu Asp Arg Asn Leu Pro Ser Asp Ser 130 135 140

Gln Asp Leu Gly Gln His Gly Leu Glu Glu Asp Phe Met Leu 145 150 155

<210> 2984

<211> 1019

<212> PRT

<213> Homo sapiens

<400> 2984

Ala Asp Pro Glu Ser Pro Ile Leu Asp Leu Asp Leu His Leu Pro Leu 1 5 10 15 Leu Cys Phe Arg Pro Glu Lys Val Leu Gln Ile Leu Thr Cys Ile Leu 20 25 30

- Thr Glu Gln Arg Ile Val Phe Phe Ser Ser Asp Trp Ala Leu Leu Thr 35 40 45
- Leu Val Thr Glu Cys Phe Met Ala Tyr Leu Tyr Pro Leu Gln Trp Gln 50 55 60
- His Pro Phe Val Pro Ile Leu Ser Asp Gln Met Leu Asp Phe Val Met 65 70 75 80
- Ala Pro Thr Ser Phe Leu Met Gly Cys His Leu Asp His Phe Glu Glu 85 90 95
- Val Ser Lys Glu Ala Asp Gly Leu Val Leu Ile Asn Ile Asp His Gly
  100 105 110
- Ser Ile Thr Tyr Ser Lys Ser Thr Asp Asp Asn Val Asp Ile Pro Asp 115 120 125
- Val Pro Leu Leu Ala Ala Gln Thr Phe Ile Gln Arg Val Gln Ser Leu 130 135 140
- Gln Leu His His Glu Leu His Ala Ala His Leu Leu Ser Ser Thr Asp 145 150 155 160
- Leu Lys Glu Gly Arg Ala His Arg Arg Ser Trp Gln Gln Lys Leu Asn 165 170 175
- Cys Gln Ile Gln Gln Thr Thr Leu Gln Leu Leu Val Ser Ile Phe Arg 180 185 190
- Asp Val Lys Asn His Leu Asn Tyr Glu His Arg Val Phe Asn Ser Glu 195 200 205
- Glu Phe Leu Lys Thr Arg Ala Pro Gly Asp His Gln Phe Tyr Lys Gln 210 215 220
- Val Leu Asp Thr Tyr Met Phe His Ser Phe Leu Lys Ala Arg Leu Asn 225 230 235 240
- Arg Arg Met Asp Ala Phe Ala Gln Met Asp Leu Asp Thr Gln Ser Glu 245 250 255

Glu Asp Arg Ile Asn Gly Met Leu Leu Ser Pro Arg Arg Pro Thr Val 260 265 270

- Glu Lys Arg Ala Ser Arg Lys Ser Ser His Leu His Val Thr His Arg 275 280 285
- Arg Met Val Val Ser Met Pro Asn Leu Gln Asp Ile Ala Met Pro Glu 290 295 300
- Leu Ala Pro Arg Asn Ser Ser Leu Arg Leu Thr Asp Thr Ala Gly Cys 305 310 315 320
- Arg Gly Ser Ser Ala Val Leu Asn Val Thr Pro Lys Ser Pro Tyr Thr 325 330 335
- Phe Lys Ile Pro Glu Ile His Phe Pro Leu Glu Ser Lys Cys Val Gln 340 345 350
- Ala Tyr His Ala His Phe Val Ser Met Leu Ser Glu Ala Met Cys Phe 355 360 365
- Leu Ala Pro Asp Asn Ser Leu Leu Leu Ala Arg Tyr Leu Tyr Leu Arg 370 375 380
- Gly Leu Val Tyr Leu Met Gln Gly Gln Leu Leu Asn Ala Leu Leu Asp 385 390 395 400
- Phe Gln Asn Leu Tyr Lys Thr Asp Ile Arg Ile Phe Pro Thr Asp Leu 405 410 415
- Val Lys Arg Thr Val Glu Ser Met Ser Ala Pro Glu Trp Glu Gly Ala 420 425 430
- Glu Gln Ala Pro Glu Leu Met Arg Leu Ile Ser Glu Ile Leu Asp Lys 435 440 445
- Pro His Glu Ala Ser Lys Leu Asp Asp His Val Lys Lys Phe Lys Leu 450 455 460
- Pro Lys Lys His Met Gln Leu Gly Asp Phe Met Lys Arg Val Gln Glu 465 470 475 480
- Ser Gly Ile Val Lys Asp Ala Ser Ile Ile His Arg Leu Phe Glu Ala 485 490 495
- Leu Thr Val Gly Gln Glu Lys Gln Ile Asp Pro Glu Thr Phe Lys Asp

500 505 510

Phe Tyr Asn Cys Trp Lys Glu Thr Glu Ala Glu Ala Gln Glu Val Ser 515 520 525

Leu Pro Trp Leu Val Met Glu His Leu Asp Lys Asn Glu Cys Val Cys 530 540

Lys Leu Ser Ser Ser Val Lys Thr Asn Leu Gly Val Gly Lys Ile Ala 545 550 555 560

Met Thr Gln Lys Arg Leu Phe Leu Leu Thr Glu Gly Arg Pro Gly Tyr 565 570 575

Leu Glu Ile Ser Thr Phe Arg Asn Ile Glu Glu Val Arg Arg Thr Thr 580 585 590

Thr Thr Phe Leu Leu Arg Arg Ile Pro Thr Leu Lys Ile Arg Val Ala 595 600 605

Ser Lys Lys Glu Val Phe Glu Ala Asn Leu Lys Thr Glu Cys Asp Leu 610 620

Trp His Leu Met Val Lys Glu Met Trp Ala Gly Lys Lys Leu Ala Asp 625 630 635 640

Asp His Lys Asp Pro His Tyr Val Gln Gln Ala Leu Thr Asn Val Leu 645 650 655

Leu Met Asp Ala Val Val Gly Thr Leu Gln Ser Pro Gly Ala Ile Tyr
660 665 670

Ala Ala Ser Lys Leu Ser Tyr Phe Asp Lys Met Ser Asn Glu Met Pro 675 680 685

Met Thr Leu Pro Glu Thr Thr Leu Glu Thr Leu Lys His Lys Ile Asn 690 695 700

Pro Ser Ala Gly Glu Ala Phe Pro Gln Ala Val Asp Val Leu Leu Tyr 705 710 715 720

Thr Pro Gly His Leu Asp Pro Ala Glu Lys Val Glu Asp Ala His Pro 725 730 735

Lys Leu Trp Cys Ala Leu Ser Glu Gly Lys Val Thr Val Phe Asn Ala 740 745 750

Ser Ser Trp Thr Ile His Gln His Ser Phe Lys Val Gly Thr Ala Lys
755 760 765

- Val Asn Cys Met Val Met Ala Asp Gln Asn Gln Val Trp Val Gly Ser 770 775 780
- Glu Asp Ser Val Ile Tyr Ile Ile Asn Val His Ser Met Ser Cys Asn 785 790 795 800
- Lys Gln Leu Thr Ala His Cys Ser Ser Val Thr Asp Leu Ile Val Gln 805 810 815
- Asp Gly Gln Glu Ala Pro Ser Asn Val Tyr Ser Cys Ser Met Asp Gly
  820 825 830
- Met Val Leu Val Trp Asn Val Ser Thr Leu Gln Val Thr Ser Arg Phe 835 840 845
- Gln Leu Pro Arg Gly Gly Leu Thr Ser Ile Arg Leu His Gly Gly Arg 850 855 860
- Leu Trp Cys Cys Thr Gly Asn Ser Ile Met Val Met Lys Met Asn Gly 865 870 875 880
- Ser Leu His Gln Glu Leu Lys Ile Glu Glu Asn Phe Lys Asp Thr Ser 885 890 895
- Thr Ser Phe Leu Ala Phe Gln Leu Leu Pro Glu Glu Glu Gln Leu Trp 900 905 910
- Ala Ala Cys Ala Gly Arg Ser Glu Val Tyr Ile Trp Ser Leu Lys Asp 915 920 925
- Leu Ala Gln Pro Pro Gln Arg Val Pro Leu Glu Asp Cys Ser Glu Ile 930 935 940
- Asn Cys Met Ile Arg Val Lys Lys Gln Val Trp Val Gly Ser Arg Gly 945 950 955 960
- Leu Gly Gln Gly Thr Pro Lys Gly Lys Ile Tyr Val Ile Asp Ala Glu 965 970 975
- Arg Lys Thr Val Glu Lys Glu Leu Val Ala His Met Asp Thr Val Arg 980 985 990

Thr Leu Cys Ser Ala Glu Asp Arg Tyr Val Leu Ser Gly Ser Gly Arg 995 1000 1005

Glu Glu Gly Lys Val Ala Ile Trp Lys Gly Glu 1010 1015

<210> 2985

<211> 783

<212> PRT

<213> Homo sapiens

<400> 2985

Met Ala Lys Tyr Asn Thr Gly Gly Asn Pro Thr Glu Asp Val Ser Val 1 5 10 15

Asn Ser Arg Pro Phe Arg Val Thr Gly Pro Asn Ser Ser Ser Gly Ile 20 25 30

Gln Ala Arg Lys Asn Leu Phe Asn Asn Gln Gly Asn Ala Ser Pro Pro 35 40 45

Ala Gly Pro Ser Asn Val Pro Lys Phe Gly Ser Pro Lys Pro Pro Val

Ala Val Lys Pro Ser Ser Glu Glu Lys Pro Asp Lys Glu Pro Lys Pro 65 70 75 80

Pro Phe Leu Lys Pro Thr Gly Ala Gly Gln Arg Phe Gly Thr Pro Ala 85 90 95

Ser Leu Thr Thr Arg Asp Pro Glu Ala Lys Val Gly. Phe Leu Lys Pro 100 105 110

Val Gly Pro Lys Pro Ile Asn Leu Pro Lys Glu Asp Ser Lys Pro Thr 115 120 125

Phe Pro Trp Pro Pro Gly Asn Lys Pro Ser Leu His Ser Val Asn Gln 130 135 140

Asp His Asp Leu Lys Pro Leu Gly Pro Lys Ser Gly Pro Thr Pro Pro 145 150 155 160

Thr Ser Glu Asn Glu Gln Lys Gln Ala Phe Pro Lys Leu Thr Gly Val

Lys Gly Lys Phe Met Ser Ala Ser Gln Asp Leu Glu Pro Lys Pro Leu

180 . 185 190

Phe Pro Lys Pro Ala Phe Gly Gln Lys Pro Pro Leu Ser Thr Glu Asn 195 200 205

Ser His Glu Asp Glu Ser Pro Met Lys Asn Val Ser Ser Ser Lys Gly 210 215 220

Ser Pro Ala Pro Leu Gly Val Arg Ser Lys Ser Gly Pro Leu Lys Pro 225 230 235 240

Ala Arg Glu Asp Ser Glu Asn Lys Asp His Ala Gly Glu Ile Ser Ser 245 250 255

Leu Pro Phe Pro Gly Val Val Leu Lys Pro Ala Ala Ser Arg Gly Gly 260 265 270

Leu Gly Leu Ser Lys Asn Gly Glu Glu Lys Lys Glu Asp Arg Lys Ile 275 280 285

Asp Ala Ala Lys Asn Thr Phe Gln Ser Lys Ile Asn Gln Glu Glu Leu 290 295 300

Ala Ser Gly Thr Pro Pro Ala Arg Phe Pro Lys Ala Pro Ser Lys Leu 305 310 315 320

Thr Val Gly Gly Pro Trp Gly Gln Ser Gln Glu Lys Glu Lys Gly Asp 325 330 335

Lys Asn Ser Ala Thr Pro Lys Gln Lys Pro Leu Pro Pro Leu Phe Thr 340 345 350

Leu Gly Pro Pro Pro Pro Lys Pro Asn Arg Pro Pro Asn Val Asp Leu 355 360 365

Thr Lys Phe His Lys Thr Ser Ser Gly Asn Ser Thr Ser Lys Gly Gln 370 375 380

Thr Ser Tyr Ser Thr Thr Ser Leu Pro Pro Pro Pro Pro Ser His Pro 385 390 395 400

Ala Ser Gln Pro Pro Leu Pro Ala Ser His Pro Ser Gln Pro Pro Val 405 410 415

Pro Ser Leu Pro Pro Arg Asn Ile Lys Pro Pro Phe Asp Leu Lys Ser 420 425 430

Pro Val Asn Glu Asp Asn Gln Asp Gly Val Thr His Ser Asp Gly Ala
435
440
445

- Gly Asn Leu Asp Glu Glu Gln Asp Ser Glu Gly Glu Thr Tyr Glu Asp 450 455 460
- Ile Glu Ala Ser Lys Glu Arg Glu Lys Lys Arg Glu Lys Glu Glu Lys 465 470 475 480
- Lys Arg Leu Glu Leu Glu Lys Lys Glu Gln Lys Glu Lys Glu Lys Lys
  485 490 495
- Glu Gln Glu Ile Lys Lys Phe Lys Leu Thr Gly Pro Ile Gln Val
- Ile His Leu Ala Lys Ala Cys Cys Asp Val Lys Gly Gly Lys Asn Glu 515 520 525
- Leu Ser Phe Lys Gln Gly Glu Gln Ile Glu Ile Ile Arg Ile Thr Asp 530 535 540
- Asn Pro Glu Gly Lys Trp Leu Gly Arg Thr Ala Arg Gly Ser Tyr Gly 545 550 555 560
- Tyr Ile Lys Thr Thr Ala Val Glu Ile Asp Tyr Asp Ser Leu Lys Leu 565 570 575
- Lys Lys Asp Ser Leu Gly Ala Pro Ser Arg Pro Ile Glu Asp Asp Gln 580 585 590
- Glu Val Tyr Asp Asp Val Ala Glu Gln Asp Asp Ile Ser Ser His Ser 595 600 605
- Gln Ser Gly Ser Gly Gly Ile Phe Pro Pro Pro Pro Asp Asp Ile 610 615 620
- Tyr Asp Gly Ile Glu Glu Glu Asp Ala Asp Asp Gly Phe Pro Ala Pro 625 630 635 640
- Pro Lys Gln Leu Asp Met Gly Asp Glu Val Tyr Asp Asp Val Asp Thr 645 650 655
- Ser Asp Phe Pro Val Ser Ser Ala Glu Met Ser Gln Gly Thr Asn Phe 660 665 670

Gly Lys Ala Lys Thr Glu Glu Lys Asp Leu Lys Lys Leu Lys Lys Gln 675 680 685

Glu Lys Glu Glu Lys Asp Phe Arg Lys Lys Phe Lys Tyr Asp Gly Glu 690 695 700

Ile Arg Val Leu Tyr Ser Thr Lys Val Thr Thr Ser Ile Thr Ser Lys
705 710 715 720

Lys Trp Gly Thr Arg Asp Leu Gln Val Lys Pro Gly Glu Ser Leu Glu 725 730 735

Val Ile Gln Thr Thr Asp Asp Thr Lys Val Leu Cys Arg Asn Glu Glu 740 745 750

Gly Lys Tyr Gly Tyr Val Leu Arg Ser Tyr Leu Ala Asp Asn Asp Gly 755 760 765

Glu Ile Tyr Asp Asp Ile Ala Asp Gly Cys Ile Tyr Asp Asn Asp 770 775 780

<210> 2986

<211> 266

<212> PRT

<213> Homo sapiens

<400> 2986

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Ser Leu Ala Ala Leu Thr 1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Arg Leu Ala Phe Ala Gly Asp Thr 20 25 30

Arg Pro Arg Phe Leu Glu Leu Arg Lys Ser Glu Cys His Phe Phe Asn 35 40 45

Gly Thr Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu 50 55 60

Glu Phe Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr 65 70 75 80

Glu Leu Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Leu 85 90 95

Leu Glu Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr

100 105 110

Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His Pro Gln Val 115 120 125

Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His Asn Leu Leu 130 135 140

Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp 145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser Thr Gly Leu 165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser 195 200 205

Val Thr Ser Ala Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala 210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Phe Val Leu Gly Leu Leu 225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His 245 250 255

Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser 260 265

<210> 2987

<211> 363

<212> PRT

<213> Homo sapiens

<400> 2987

Met Glu Val Lys Lys Lys His Asp Lys Gln Glu Gln Lys Gly Ser 1 5 10 15

Val Gly Ala Thr Phe Lys Leu Gly Asp Ser Leu Ser Asn Pro Asn Glu 20 25 30

Arg Ala Ile Val Lys Glu Lys Met Val Ser Asn Thr Lys Ser Val Asp 35 40 45

Thr Lys Ala Ser Ser Ser Lys Phe Ser Arg Ile Leu Thr Pro Lys Glu 50 55 60

- Tyr Leu Gln Arg Gln Lys His Lys Glu Ala Pro Ser Asn Lys Ala Ser 65 70 75 80
- Lys Lys Ile Cys Val Lys Asn Val Pro Cys Asp Ser Glu His Met Arg 85 90 95
- Pro Ser Lys Leu Ala Val Gln Val Glu Ser Cys Gly Lys Ser Asn Glu 100 105 110
- Lys His Ser Ser Gly Val Gln Thr Ser Lys Glu Ser Leu Asn Gly Leu 115 120 125
- Thr Ser His Gly Lys Asn Leu Lys Ile His His Ser Gln Glu Ser Lys 130 135 140
- Thr Tyr Asn Ile Leu Arg Asn Val Lys Glu Lys Val Gly Gly Lys Gln
  150 155 160
- Pro Asp Lys Ile Trp Ile Asp Lys Thr Lys Leu Asp Lys Leu Thr Asn 165 170 175
- Ile Ser Asn Glu Ala Gin Phe Ser Gln Met Pro Pro Gln Val Lys Asp 180 185 190
- Gln Lys Lys Leu Tyr Leu Asn Arg Val Gly Phe Lys Cys Thr Glu Arg 195 200 205
- Glu Ser Ile Ser Leu Thr Lys Leu Glu Ser Ser Pro Arg Lys Leu His 210 215 220
- Lys Asp Lys Arg Gln Glu Asn Lys His Lys Thr Phe Leu Pro Val Lys 225 230 235 240
- Gly Asn Thr Glu Lys Ser Asn Met Leu Glu Phe Lys Leu Cys Pro Asp 245 250 255
- Ile Leu Leu Lys Asn Thr Asn Ser Val Glu Glu Arg Lys Asp Val Lys 260 265 270
- Pro His Pro Arg Lys Glu Gln Ala Pro Leu Gln Val Ser Gly Ile Lys 275 280 285

Ser Thr Lys Glu Asp Trp Leu Lys Phe Val Ala Thr Lys Lys Arg Thr 290 295 300

Gln Lys Asp Ser Gln Glu Arg Asp Asn Val Asn Ser Arg Leu Ser Lys 305 310 315 320

Arg Ser Phe Ser Ala Asp Gly Phe Glu Met Leu Gln Asn Pro Val Lys 325 330 335

Asp Ser Lys Glu Met Phe Gln Thr Tyr Lys Gln Met Tyr Leu Glu Lys 340 345 350

Arg Ser Arg Ser Leu Gly Ser Ser Pro Val Lys

<210> 2988

<211> 836

<212> PRT

<213> Homo sapiens

<400> 2988

Met Ala Arg Leu Gly Asn Cys Ser Leu Thr Trp Ala Ala Leu Ile Ile 1 5 10 15

Leu Leu Leu Pro Gly Ser Leu Glu Glu Cys Gly His Ile Ser Val Ser 20 25 30

Ala Pro Ile Val His Leu Gly Asp Pro Ile Thr Ala Ser Cys Ile Ile 35 40 45

Lys Gln Asn Cys Ser His Leu Asp Pro Glu Pro Gln Ile Leu Trp Arg 50 55 60

Leu Gly Ala Glu Leu Gln Pro Gly Gly Arg Gln Gln Arg Leu Ser Asp 65 70 75 80

Gly Thr Gln Glu Ser Ile Ile Thr Leu Pro His Leu Asn His Thr Gln
85 90 95

Ala Phe Leu Ser Cys Cys Leu Asn Trp Gly Asn Ser Leu Gln Ile Leu 100 105 110

Asp Gln Val Glu Leu Arg Ala Gly Tyr Pro Pro Ala Ile Pro His Asn 115 120 125

Leu Ser Cys Leu Met Asn Leu Thr Thr Ser Ser Leu Ile Cys Gln Trp 130 135 140

1396

Glu 145	Pro	Gly	Pro	Glu	Thr 150	His	Leu	Pro	Thr	Ser 155	Phe	Thr	Leu	Lys	Ser 160
Phe	Lys	Ser	Arg	Gly 165	Asn	Сув	Gln	Thr	Gln 170	Gly	Asp	Ser	Ile	Leu 175	Asp
Cys	Val	Pro	Lys 180	Asp	Gly	Gln	Ser	His 185	Cys	Cys	Ile	Pro	Arg 190	Lys	His
Leu	Leu	Leu 195	Tyr	Gln	Asn	Met	Gly 200	Ile	Trp	Val	Gln	Ala 205	Glu	Asn	Ala
Leu	Gly 210	Thr	Ser	Met	Ser	Pro 215	Gln	Leu	Cys	Leu	Asp 220	Pro	Met	Asp	Val
Val 225	Lys	Leu	Glu	Pro	Pro 230	Met	Leu	Arg	Thr	Met 235	Asp	Pro	Ser	Pro	Glu 240
Ala	Ala	Pro	Pro	Gln 245	Ala	Gly	Суѕ	Leu	Gln 250	Leu	Cys	Trp	Glu	Pro 255	Trp
Gln	Pro	Gly	Leu 260	His	Ile	Asn	Gln	Lys 265	Cys	Glu	Leu	Arg	His 270	Lys	Pro
Gln	Arg	Gly 275	Glu	Ala	Ser	Trp	Ala 280	Leu	Val	Gly	Pro	Leu 285	Pro	Leu	Glu
Ala	Leu 290	Gln	Tyr	Glu	Leu	Cys 295	Gly	Leu	Leu	Pro	Ala 300	Thr	Ala	Tyr	Thr
Leu 305	Gln	Ile	Arg	Сув	Ile 310	Arg	Trp	Pro	Leu	Pro 315	Gly	His	Trp	Ser	Asp 320
Trp	Ser	Pro	Ser	Leu 325	Glu	Leu	Arg	Thr	Thr 330		Arg	Ala	Pro	Thr 335	Val
Arg	Leu	Asp	Thr 340	Trp	Trp	Arg	Gln	Arg 345		Leu	Asp	Pro	Arg 350	Thr	Va]
Gln	Leu	Phe 355		Lys	Pro	Val	Pro 360		Glu	Glu	Asp	Ser 365	Gly	Arg	Ile
Gln	Gly 370	Tyr	Val	Val	Ser	Trp 375	Arg	Pro	Ser	Gly	Gln 380		Gly	Ala	Ile

Leu Pro Leu Cys Asn Thr Thr Glu Leu Ser Cys Thr Phe His Leu Pro 385 390 395 400

- Ser Glu Ala Gln Glu Val Ala Leu Val Ala Tyr Asn Ser Ala Gly Thr 405 410 415
- Ser Arg Pro Thr Pro Val Val Phe Ser Glu Ser Arg Gly Pro Ala Leu 420 425 430
- Thr Arg Leu His Ala Met Ala Arg Asp Pro His Ser Leu Trp Val Gly
  435 440 445
- Trp Glu Pro Pro Asn Pro Trp Pro Gln Gly Tyr Val Ile Glu Trp Gly 450 455 460
- Leu Gly Pro Pro Ser Ala Ser Asn Ser Asn Lys Thr Trp Arg Met Glu 465 470 475 480
- Gln Asn Gly Arg Ala Thr Gly Phe Leu Leu Lys Glu Asn Ile Arg Pro 485 490 495
- Phe Gln Leu Tyr Glu Ile Ile Val Thr Pro Leu Tyr Gln Asp Thr Met 500 505 510
- Gly Pro Ser Gln His Val Tyr Ala Tyr Ser Gln Glu Met Ala Pro Ser 515 520 525
- His Ala Pro Glu Leu His Leu Lys His Ile Gly Lys Thr Trp Ala Gln 530 535 540
- Leu Glu Trp Val Pro Glu Pro Pro Glu Leu Gly Lys Ser Pro Leu Thr 545 550 555 560
- His Tyr Thr Ile Phe Trp Thr Asn Ala Gln Asn Gln Ser Phe Ser Ala 565 570 575
- Ile Leu Asn Ala Ser Ser Arg Gly Phe Val Leu His Gly Leu Glu Pro 580 585 590
- Ala Ser Leu Tyr His Ile His Leu Met Ala Ala Ser Gln Ala Gly Ala 595 600 605
- Thr Asn Ser Thr Val Leu Thr Leu Met Thr Leu Thr Pro Glu Gly Ser 610 615 620

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Glu Leu His Ile Ile Leu Gly Leu Phe Gly Leu Leu Leu Leu Thr 635

- Cys Leu Cys Gly Thr Ala Trp Leu Cys Cys Ser Pro Asn Arg Lys Asn
- Pro Leu Trp Pro Ser Val Pro Asp Pro Ala His Ser Ser Leu Gly Ser 665
- Trp Val Pro Thr Ile Met Glu Glu Asp Ala Phe Gln Leu Pro Gly Leu
- Gly Thr Pro Pro Ile Thr Lys Leu Thr Val Leu Glu Glu Asp Glu Lys 695
- Lys Pro Val Pro Trp Glu Ser His Asn Ser Ser Glu Thr Cys Gly Leu 710
- Pro Thr Leu Val Gln Thr Tyr Val Leu Gln Gly Asp Pro Arg Ala Val 730
- Ser Thr Gln Pro Gln Ser Gln Ser Gly Thr Ser Asp Gln Val Leu Tyr
- Gly Gln Leu Leu Gly Ser Pro Thr Ser Pro Gly Pro Gly His Tyr Leu
- Arg Cys Asp Ser Thr Gln Pro Leu Leu Ala Gly Leu Thr Pro Ser Pro 780
- Lys Ser Tyr Glu Asn Leu Trp Phe Gln Ala Ser Pro Leu Gly Thr Leu 795
- Val Thr Pro Ala Pro Ser Gln Glu Asp Asp Cys Val Phe Gly Pro Leu 810
- Leu Asn Phe Pro Leu Leu Gln Gly Ile Arg Val His Gly Met Glu Ala 825 830

Leu Gly Ser Phe 835

<210> 2989 <211> 276 <212> PRT <213> Homo sapiens

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Met Gly Asn Ser Met Lys Ser Thr Pro Ala Pro Ala Glu Arg Pro Leu 1 5 10 15

Pro Asn Pro Glu Gly Leu Asp Ser Asp Phe Leu Ala Val Leu Ser Asp 20 25 30

Tyr Pro Ser Pro Asp Ile Ser Pro Pro Ile Phe Arg Arg Gly Glu Lys 35 40 45

Leu Arg Val Ile Ser Asp Glu Gly Gly Trp Trp Lys Ala Ile Ser Leu 50 55 60

Ser Thr Gly Arg Glu Ser Tyr Ile Pro Gly Ile Cys Val Ala Arg Val 65 70 75 80

Tyr His Gly Trp Leu Phe Glu Gly Leu Gly Arg Asp Lys Ala Glu Glu 85 90 95

Leu Leu Gln Leu Pro Asp Thr Lys Val Gly Ser Phe Met Ile Arg Glu
100 105 110

Ser Glu Thr Lys Lys Gly Phe Tyr Ser Leu Ser Val Arg His Arg Gln 115 120 125

Val Lys His Tyr Arg Ile Phe Arg Leu Pro Asn Asn Trp Tyr Tyr Ile 130 135 140

Ser Pro Arg Leu Thr Phe Gln Cys Leu Glu Asp Leu Val Asn His Tyr 145 150 155 160

Ser Glu Val Ala Asp Gly Leu Cys Cys Val Leu Thr Thr Pro Cys Leu 165 170 175

Thr Gln Ser Thr Ala Ala Pro Ala Val Arg Ala Ser Ser Ser Pro Val 180 185 190

Thr Leu Arg Gln Lys Thr Val Asp Trp Arg Arg Val Ser Arg Leu Gln
195 200 205

Glu Asp Pro Glu Gly Thr Glu Asn Pro Leu Gly Val Asp Glu Ser Leu 210 215 220

Phe Ser Tyr Gly Leu Arg Glu Ser Ile Ala Ser Tyr Leu Ser Leu Thr 225 230 235 240

Ser Glu Asp Asn Thr Ser Phe Asp Arg Lys Lys Ser Ile Ser Leu 245 250

Met Tyr Gly Gly Ser Lys Arg Lys Ser Ser Phe Phe Ser Ser Pro Pro 260 265

Tyr Phe Glu Asp 275

<210> 2990

<211> 359 <212> PRT <213> Homo sapiens

<400> 2990

Met Ala Pro Asn Gly Thr Ala Ser Ser Phe Cys Leu Asp Ser Thr Ala

Cys Lys Ile Thr Ile Thr Val Val Leu Ala Val Leu Ile Leu Ile Thr

Val Ala Gly Asn Val Val Cys Leu Ala Val Gly Leu Asn Arg Arg 35

Leu Arg Asn Leu Thr Asn Cys Phe Ile Val Ser Leu Ala Ile Thr Asp 55

Leu Leu Leu Gly Leu Leu Val Leu Pro Phe Ser Ala Ile Tyr Gln Leu 70

Ser Cys Lys Trp Ser Phe Gly Lys Val Phe Cys Asn Ile Tyr Thr Ser 90

Leu Asp Val Met Leu Cys Thr Ala Ser Ile Leu Asn Leu Phe Met Ile 100 105

Ser Leu Asp Arg Tyr Cys Ala Val Met Asp Pro Leu Arg Tyr Pro Val 115

Leu Val Thr Pro Val Arg Val Ala Ile Ser Leu Val Leu Ile Trp Val 130 135

Ile Ser Ile Thr Leu Ser Phe Leu Ser Ile His Leu Gly Trp Asn Ser 145 155

Arg Asn Glu Thr Ser Lys Gly Asn His Thr Thr Ser Lys Cys Lys Val

165 170 175

Gln Val Asn Glu Val Tyr Gly Leu Val Asp Gly Leu Val Thr Phe Tyr
180 185 190

Leu Pro Leu Leu Ile Met Cys Ile Thr Tyr Tyr Arg Ile Phe Lys Val

Ala Arg Asp Gln Ala Lys Arg Ile Asn His Ile Ser Ser Trp Lys Ala 210 215 220

Ala Thr Ile Arg Glu His Lys Ala Thr Val Thr Leu Ala Ala Val Met 225 230 235 240

Gly Ala Phe Ile Ile Cys Trp Phe Pro Tyr Phe Thr Ala Phe Val Tyr 245 250 255

Arg Gly Leu Arg Gly Asp Asp Ala Ile Asn Glu Val Leu Glu Ala Ile
260 265 270

Val Leu Trp Leu Gly Tyr Ala Asn Ser Ala Leu Asn Pro Ile Leu Tyr 275 280 285

Ala Ala Leu Asn Arg Asp Phe Arg Thr Gly Tyr Gln Gln Leu Phe Cys
290 295 300

Cys Arg Leu Ala Asn Arg Asn Ser His Lys Thr Ser Leu Arg Ser Asn 305 310 315 320

Ala Ser Gln Leu Ser Arg Thr Gln Ser Arg Glu Pro Arg Gln Gln Glu 325 330 335

Glu Lys Pro Leu Lys Leu Gln Val Trp Ser Gly Thr Glu Val Thr Ala 340 345 350

Pro Gln Gly Ala Thr Asp Arg 355

<210> 2991

<211> 505

<212> PRT

<213> Homo sapiens

<400> 2991

Met Gly Ser Met Lys Ser Lys Phe Leu Gln Val Gly Gly Asn Thr Phe 1 5 10 15

Ser Lys Thr Glu Thr Ser Ala Ser Pro His Cys Pro Val Tyr Val Pro
20 25 30

- Asp Pro Thr Ser Thr Ile Lys Pro Gly Pro Asn Ser His Asn Ser Asn 35 40 45
- Thr Pro Gly Ile Arg Glu Ala Gly Ser Glu Asp Ile Ile Val Val Ala 50 60
- Leu Tyr Asp Tyr Glu Ala Ile His His Glu Asp Leu Ser Phe Gln Lys 65 70 75 80
- Gly Asp Gln Met Val Val Leu Glu Glu Ser Gly Glu Trp Trp Lys Ala 85 90 95
- Arg Ser Leu Ala Thr Arg Lys Glu Gly Tyr Ile Pro Ser Asn Tyr Val
- Ala Arg Val Asp Ser Leu Glu Thr Glu Glu Trp Phe Phe Lys Gly Ile 115 120 125
- Ser Arg Lys Asp Ala Glu Arg Gln Leu Leu Ala Pro Gly Asn Met Leu 130 135 140
- Gly Ser Phe Met Ile Arg Asp Ser Glu Thr Thr Lys Gly Ser Tyr Ser 145 150 155 160
- Leu Ser Val Arg Asp Tyr Asp Pro Arg Gln Gly Asp Thr Val Lys His
  165 170 175
- Tyr Lys Ile Arg Thr Leu Asp Asn Gly Gly Phe Tyr Ile Ser Pro Arg 180 185 190
- Ser Thr Phe Ser Thr Leu Gln Glu Leu Val Asp His Tyr Lys Lys Gly
  195 200 205
- Asn Asp Gly Leu Cys Gln Lys Leu Ser Val Pro Cys Met Ser Ser Lys 210 220
- Pro Gln Lys Pro Trp Glu Lys Asp Ala Trp Glu Ile Pro Arg Glu Ser 225 230 235 240
- Leu Lys Leu Glu Lys Lys Leu Gly Ala Gly Gln Phe Gly Glu Val Trp 245 250 255

Met Ala Thr Tyr Asn Lys His Thr Lys Val Ala Val Lys Thr Met Lys 260 265 270

- Pro Gly Ser Met Ser Val Glu Ala Phe Leu Ala Glu Ala Asn Val Met 275 280 285
- Lys Thr Leu Gln His Asp Lys Leu Val Lys Leu His Ala Val Val Thr 290 295 300
- Lys Glu Pro Ile Tyr Ile Ile Thr Glu Phe Met Ala Lys Gly Ser Leu 305 310 315 320
- Leu Asp Phe Leu Lys Ser Asp Glu Gly Ser Lys Gln Pro Leu Pro Lys 325 330 335
- Leu Ile Asp Phe Ser Ala Gln Ile Ala Glu Gly Met Ala Phe Ile Glu 340 345 350
- Gln Arg Asn Tyr Ile His Arg Asp Leu Arg Ala Ala Asn Ile Leu Val 355 360 365
- Ser Ala Ser Leu Val Cys Lys Ile Ala Asp Phe Gly Leu Ala Arg Val 370 375 380
- Ile Glu Asp Asn Glu Tyr Thr Ala Arg Glu Gly Ala Lys Phe Pro Ile 385 390 395 400
- Lys Trp Thr Ala Pro Glu Ala Ile Asn Phe Gly Ser Phe Thr Ile Lys 405 410 415
- Ser Asp Val Trp Ser Phe Gly Ile Leu Leu Met Glu Ile Val Thr Tyr 420 425 430
- Gly Arg Ile Pro Tyr Pro Gly Met Ser Asn Pro Glu Val Ile Arg Ala 435 440 445
- Leu Glu Arg Gly Tyr Arg Met Pro Arg Pro Glu Asn Cys Pro Glu Glu
  450 455 460
- Leu Tyr Asn Ile Met Met Arg Cys Trp Lys Asn Arg Pro Glu Glu Arg 465 470 475 480
- Pro Thr Phe Glu Tyr Ile Gln Ser Val Leu Asp Asp Phe Tyr Thr Ala 485 490 495

Thr Glu Ser Gln Tyr Gln Gln Pro

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505

<210> 2992 <211> 1333 <212> PRT <213> Homo sapiens

500

<400> 2992

Met Thr Ala Asp Lys Leu Val Phe Phe Val Asn Gly Arg Lys Val Val 5

Glu Lys Asn Ala Asp Pro Glu Thr Thr Leu Leu Ala Tyr Leu Arg Arg

Lys Leu Gly Leu Ser Gly Thr Lys Leu Gly Cys Gly Glu Gly Cys 40

Gly Ala Cys Thr Val Met Leu Ser Lys Tyr Asp Arg Leu Gln Asn Lys

Ile Val His Phe Ser Ala Asn Ala Cys Leu Ala Pro Ile Cys Ser Leu

His His Val Ala Val Thr Thr Val Glu Gly Ile Gly Ser Thr Lys Thr

Arg Leu His Pro Val Gln Glu Arg Ile Ala Lys Ser His Gly Ser Gln 100

Cys Gly Phe Cys Thr Pro Gly Ile Val Met Ser Met Tyr Thr Leu Leu 115 120

Arg Asn Gln Pro Glu Pro Thr Met Glu Glu Ile Glu Asn Ala Phe Gln

Gly Asn Leu Cys Arg Cys Thr Gly Tyr Arg Pro Ile Leu Gln Gly Phe 150 155

Arg Thr Phe Ala Arg Asp Gly Gly Cys Cys Gly Gly Asp Gly Asn Asn 170

Pro Asn Cys Cys Met Asn Gln Lys Lys Asp His Ser Val Ser His Ser 180 185

Pro Ser Leu Phe Lys Pro Glu Glu Phe Thr Pro Leu Asp Pro Thr Gln 200 205

Glu Pro Ile Phe Pro Pro Glu Leu Leu Arg Leu Lys Asp Thr Pro Arg Lys Gln Leu Arg Phe Glu Arg Glu Arg Val Thr Trp Ile Gln Ala Ser Thr Leu Lys Glu Leu Leu Asp Leu Lys Ala Gln His Pro Asp Ala Lys Leu Val Val Gly Asn Thr Glu Ile Gly Ile Glu Met Lys Phe Lys Asn Met Leu Phe Pro Met Ile Val Cys Pro Ala Trp Ile Pro Glu Leu Asn Ser Val Glu His Gly Pro Asp Gly Ile Ser Phe Gly Ala Ala Cys Pro Leu Ser Ile Val Glu Lys Thr Leu Val Asp Ala Val Ala Lys Leu Pro Ala Gln Lys Thr Glu Val Phe Arg Gly Val Leu Glu Gln Leu Arg Trp Phe Ala Gly Lys Gln Val Lys Ser Val Ala Ser Val Gly Gly Asn Ile Ile Thr Ala Ser Pro Ile Ser Asp Leu Asn Pro Val Phe Met Ala Ser Gly Ala Lys Leu Thr Leu Val Ser Arg Gly Thr Arg Arg Thr Val Gln Met Asp His Thr Phe Phe Pro Gly Tyr Arg Lys Thr Leu Leu Ser Pro Glu Glu Ile Leu Leu Ser Ile Glu Ile Pro Tyr Ser Arg Glu Gly Glu Tyr Phe Ser Ala Phe Lys Gln Ala Ser Arg Arg Glu Asp Asp Ile Ala 

Lys Val Thr Ser Gly Met Arg Val Leu Phe Lys Pro Gly Thr Thr Glu

Val Gln Glu Leu Ala Leu Cys Tyr Gly Gly Met Ala Asn Arg Thr Ile 450 455 460

- Ser Ala Leu Lys Thr Thr Gln Arg Gln Leu Ser Lys Leu Trp Lys Glu 465 470 475 480
- Glu Leu Leu Gln Asp Val Cys Ala Gly Leu Ala Glu Glu Leu His Leu 485 490 495
- Pro Pro Asp Ala Pro Gly Gly Met Val Asp Phe Arg Cys Thr Leu Thr 500 505 510
- Leu Ser Phe Phe Phe Lys Phe Tyr Leu Thr Val Leu Gln Lys Leu Gly 515 520 525
- Gln Glu Asn Leu Glu Asp Lys Cys Gly Lys Leu Asp Pro Thr Phe Ala 530 535 540
- Ser Ala Thr Leu Leu Phe Gln Lys Asp Pro Pro Ala Asp Val Gln Leu 545 550 555 560
- Phe Gln Glu Val Pro Lys Gly Gln Ser Glu Glu Asp Met Val Gly Arg
  565 570 575
- Pro Leu Pro His Leu Ala Ala Asp Met Gln Ala Ser Gly Glu Ala Val 580 585 590
- Tyr Cys Asp Asp Ile Pro Arg Tyr Glu Asn Glu Leu Ser Leu Arg Leu 595 600 605
- Val Thr Ser Thr Arg Ala His Ala Lys Ile Lys Ser Ile Asp Thr Ser 610 615 620
- Glu Ala Lys Lys Val Pro Gly Phe Val Cys Phe Ile Ser Ala Asp Asp 625 630 635 640
- Val Pro Gly Ser Asn Ile Thr Gly Ile Cys Asn Asp Glu Thr Val Phe 645 650 655
- Ala Lys Asp Lys Val Thr Cys Val Gly His Ile Ile Gly Ala Val Val 660 665 670
- Ala Asp Thr Pro Glu His Thr Gln Arg Ala Ala Gln Gly Val Lys Ile 675 680 685
- Thr Tyr Glu Glu Leu Pro Ala Ile Ile Thr Ile Glu Asp Ala Ile Lys

690 695 700

Asn Asn Ser Phe Tyr Gly Pro Glu Leu Lys Ile Glu Lys Gly Asp Leu 705 710 715 720

Lys Lys Gly Phe Ser Glu Ala Asp Asn Val Val Ser Gly Glu Ile Tyr 725 730 735

Ile Gly Gly Gln Glu His Phe Tyr Leu Glu Thr His Cys Thr Ile Ala
740 745 750

Val Pro Lys Gly Glu Ala Gly Glu Met Glu Leu Phe Val Ser Thr Gln
755 760 765

Asn Thr Met Lys Thr Gln Ser Phe Val Ala Lys Met Leu Gly Val Pro 770 775 780

Ala Asn Arg Ile Val Val Arg Val Lys Arg Met Gly Gly Phe Gly 785 790 795 800

Gly Lys Glu Thr Arg Ser Thr Val Val Ser Thr Ala Val Ala Leu Ala 805 810 815

Ala Tyr Lys Thr Gly Arg Pro Val Arg Cys Met Leu Asp Arg Asp Glu 820 825 830

Asp Met Leu Ile Thr Gly Gly Arg His Pro Phe Leu Ala Arg Tyr Lys 835 840 845

Val Gly Phe Met Lys Thr Gly Thr Val Val Ala Leu Glu Val Asp His 850 855 860

Phe Ser Asn Val Gly Asn Thr Gln Asp Leu Ser Gln Ser Ile Met Glu 865 870 875 880

Arg Ala Leu Phe His Met Asp Asn Cys Tyr Lys Ile Pro Asn Ile Arg 885 890 895

Gly Thr Gly Arg Leu Cys Lys Thr Asn Leu Pro Ser Asn Thr Ala Phe 900 905 910

Arg Gly Phe Gly Gly Pro Gln Gly Met Leu Ile Ala Glu Cys Trp Met
915 920 925

Ser Glu Val Ala Val Thr Cys Gly Met Pro Ala Glu Glu Val Arg Arg 930 935 940 Lys Asn Leu Tyr Lys Glu Gly Asp Leu Thr His Phe Asn Gln Lys Leu 945 950 955 960

- Glu Gly Phe Thr Leu Pro Arg Cys Trp Glu Glu Cys Leu Ala Ser Ser 965 970 975
- Gln Tyr His Ala Arg Lys Ser Glu Val Asp Lys Phe Asn Lys Glu Asn 980 985 990
- Cys Trp Lys Lys Arg Gly Leu Cys Ile Ile Pro Thr Lys Phe Gly Ile 995 1000 1005
- Ser Phe Thr Val Pro Phe Leu Asn Gln Ala Gly Ala Leu Leu His 1010 1020
- Val Tyr Thr Asp Gly Ser Val Leu Leu Thr His Gly Gly Thr Glu 1025 1035
- Met Gly Gln Gly Leu His Thr Lys Met Val Gln Val Ala Ser Arg 1040 1050
- Ala Leu Lys Ile Pro Thr Ser Lys Ile Tyr Ile Ser Glu Thr Ser 1055 1060 1065
- Thr Asn Thr Val Pro Asn Thr Ser Pro Thr Ala Ala Ser Val Ser 1070 1070 1080
- Ala Asp Leu Asn Gly Gln Ala Val Tyr Ala Ala Cys Gln Thr Ile 1085 1090 1095
- Leu Lys Arg Leu Glu Pro Tyr Lys Lys Lys Asn Pro Ser Gly Ser 1100
- Trp Glu Asp Trp Val Thr Ala Ala Tyr Met Asp Thr Val Ser Leu 1115 1120 1125
- Ser Ala Thr Gly Phe Tyr Arg Thr Pro Asn Leu Gly Tyr Ser Phe 1130 1140
- Glu Thr Asn Ser Gly Asn Arg Phe His Tyr Phe Ser Tyr Gly Val
- Ala Cys Ser Glu Val Glu Ile Asp Cys Leu Thr Gly Asp His Lys 1160 1165 1170

Asn Leu Arg Thr Asp Ile Val Met Asp Val Gly Ser Ser Leu Asn 1175 1180 1185

Pro Ala Ile Asp Ile Gly Gln Val Glu Gly Ala Phe Val Gln Gly 1190 1195 1200

Leu Gly Leu Phe Thr Leu Glu Glu Leu His Tyr Ser Pro Glu Gly 1205 1210 1215

Ser Leu His Thr Arg Gly Pro Ser Thr Tyr Lys Ile Pro Ala Phe 1220 1225 1230

Gly Ser Ile Pro Ile Glu Phe Arg Val Ser Leu Leu Arg Asp Cys 1235 1240 1245

Pro Asn Lys Lys Ala Ile Tyr Ala Ser Lys Ala Val Gly Glu Pro 1250 1255 1260

Pro Leu Phe Leu Ala Ala Ser Ile Phe Phe Ala Ile Lys Asp Ala 1265 1270 1275

Ile Arg Ala Arg Ala Gln His Thr Gly Asn Asn Val Lys Glu 1280 1285 1290

Leu Phe Arg Leu Asp Ser Pro Ala Thr Pro Glu Lys Ile Arg Asn 1295 1300 1305

Ala Cys Val Asp Lys Phe Thr Thr Leu Cys Val Thr Gly Val Pro 1310 1315 1320

Glu Asn Cys Lys Pro Trp Ser Val Arg Val 1325 1330

<210> 2993

<211> 415

<212> PRT

<213> Homo sapiens

<400> 2993

Met Glu Gly Lys Ala Ile Ala Thr Ser Leu Gly Gly Asp Arg Val Leu 1 5 10 15

Ile Phe Pro Cys Ser Pro Arg Ser Ser Phe Val Phe Thr Ser Arg Leu 20 25 30

Ser Ser Leu Pro Leu Lys Arg Ala Ser Ile Gly Gly Ala Val Ser Cys

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Ser Gly Val Asn Gly Leu Thr Arg Trp Asn Ser Ile Val Ser Thr Arg 

Arg Leu Val Pro Val Arg Ser Ile Asn Ser Glu Ser Asp Ser Asp Ser

Asp Phe Pro His Glu Asn Gln Gln Gly Asn Pro Gly Leu Gly Lys Phe 

Lys Glu Tyr Gln Glu Trp Asp Ser Trp Thr Ala Lys Phe Ser Gly Gly 

Ala Asn Ile Pro Phe Leu Met Leu Gln Leu Pro Gln Ile Ile Leu Asn 

Thr Gln Asn Leu Leu Ala Gly Asn Asn Thr Ala Leu Ser Ala Val Pro 

Trp Leu Gly Met Leu Thr Gly Leu Leu Gly Asn Leu Ser Leu Leu Ser 

Tyr Phe Ala Lys Lys Arg Glu Lys Glu Ala Ala Val Val Gln Thr Leu 

Gly Val Val Ser Thr His Ile Val Leu Ala Gln Leu Thr Met Ala Glu 

Ala Met Pro Ile Gln Tyr Phe Val Ala Thr Ser Ala Val Val Thr Ile 

Gly Leu Ile Val Asn Cys Leu Tyr Tyr Phe Gly Lys Leu Ser Lys Thr 

Val Trp Gln Leu Trp Glu Asp Val Ile Thr Ile Gly Gly Leu Ser Val 

Leu Pro Gln Ile Met Trp Ser Thr Phe Val Pro Leu Val Pro Asn Ser 

Ile Leu Pro Gly Thr Thr Ala Phe Gly Ile Ala Val Ala Ala Ile Ile 

Met Ala Arg Thr Gly Lys Leu Ser Glu Lys Gly Val Arg Phe Val Gly 

Ser Leu Ser Gly Trp Thr Ala Thr Leu Met Phe Met Trp Met Pro Val 290 295 300

Ser Gln Met Trp Thr Asn Phe Leu Asn Pro Asp Asn Ile Lys Gly Leu 305 310 315 320

Ser Ser Ile Thr Met Leu Leu Ser Met Met Gly Asn Gly Leu Met Ile 325 330 335

Pro Arg Ala Leu Phe Ile Arg Asp Leu Met Trp Leu Thr Gly Ser Leu 340 345 350

Trp Ala Thr Leu Phe Tyr Gly Tyr Gly Asn Ile Leu Cys Leu Tyr Leu 355 360 365

Val Asn Cys Thr Ser Gln Ser Phe Phe Val Ala Ala Thr Ile Gly Leu 370 375 380

Ile Ser Trp Ile Gly Leu Ala Leu Trp Arg Asp Ala Val Ala Tyr Gly 385 390 395 400

- - - - -

His Asn Ser Pro Phe Arg Ser Leu Lys Glu Leu Val Phe Gly Pro 405 410 415

<210> 2994

<211> 363 - - - -

<212> PRT

<213> Homo sapiens

<400> 2994

Met Ala Gln Thr Pro Ala Phe Asp Lys Pro Lys Val Glu Leu His Val 1 5 10 15

His Leu Asp Gly Ser Ile Lys Pro Glu Thr Ile Leu Tyr Tyr Gly Arg

Arg Arg Gly Ile Ala Leu Pro Ala Asn Thr Ala Glu Gly Leu Leu Asn 35 40 45

Val Ile Gly Met Asp Lys Pro Leu Thr Leu Pro Asp Phe Leu Ala Lys 50 55 60

Phe Asp Tyr Tyr Met Pro Ala Ile Ala Gly Cys Arg Glu Ala Ile Lys 70 75 80

Arg Ile Ala Tyr Glu Phe Val Glu Met Lys Ala Lys Glu Gly Val Val 85 90 95

- Tyr Val Glu Val Arg Tyr Ser Pro His Leu Leu Ala Asn Ser Lys Val 100 105 110
- Glu Pro Ile Pro Trp Asn Gln Ala Glu Gly Asp Leu Thr Pro Asp Glu 115 120 125
- Val Val Ala Leu Val Gly Gln Gly Leu Gln Glu Gly Glu Arg Asp Phe 130 135 140
- Gly Val Lys Ala Arg Ser Ile Leu Cys Cys Met Arg His Gln Pro Asn 145 150 155 160
- Trp Ser Pro Lys Val Val Glu Leu Cys Lys Asn Tyr Gln Gln Gln Thr
  165 170 175
- Val Val Ala Ile Asp Leu Ala Gly Asp Glu Thr Ile Pro Gly Ser Ser 180 185 190
- Leu Leu Pro Gly His Val Gln Ala Tyr Gln Glu Ala Val Lys Ser Gly
  195 200 205
- Ile His Arg Thr Val His Ala Gly Glu Val Gly Ser Ala Glu Val Val 210 215 220
- Lys Glu Ala Val Asp Ile Leu Lys Thr Glu Arg Leu Gly His Gly Tyr 225 230 235 240
- His Thr Leu Glu Asp Gln Ala Leu Tyr Asn Arg Leu Arg Gln Glu Asn 245 250 255
- Met His Phe Glu Ile Cys Pro Trp Ser Ser Tyr Leu Thr Gly Ala Trp 260 265 270
- Lys Pro Asp Thr Glu His Ala Val Ile Arg Leu Lys Asn Asp Gln Ala 275 280 285
- Asn Tyr Ser Leu Asn Thr Asp Asp Pro Leu Ile Phe Lys Ser Thr Leu 290 295 300
- Asp Thr Asp Tyr Gln Met Thr Lys Arg Asp Met Gly Phe Thr Glu Glu 305 310 315 320
- Glu Phe Lys Arg Leu Asn Ile Asn Ala Ala Lys Ser Ser Phe Leu Pro

325 330 335

Glu Asp Glu Lys Arg Glu Leu Leu Asp Leu Leu Tyr Lys Ala Tyr Gly 340 345

Met Pro Pro Ser Ala Ser Ala Gly Gln Asn Leu 360

<210> 2995

<211> 691 <212> PRT <213> Homo sapiens

<400> 2995

Met Met Arg Asn His Arg Ile Ala Ser Ser Leu Cys Gly Asp Gln Val

Phe Ser Lys Lys Lys Lys Lys Lys Lys Asn Asn Met Ala Ala Lys 20 25

Glu Lys Leu Glu Ala Val Leu Asn Val Ala Leu Arg Val Pro Ser Ile

Met Leu Leu Asp Val Leu Tyr Arg Trp Asp Val Ser Ser Phe Phe Gln 55

Gln Ile Gln Arg Ser Ser Leu Ser Asn Asn Pro Leu Phe Gln Tyr Lys

Tyr Leu Ala Leu Asn Met His Tyr Val Gly Tyr Ile Leu Ser Val Val

Leu Leu Thr Leu Pro Arg Gln His Leu Val Gln Leu Tyr Leu Tyr Phe

Leu Thr Ala Leu Leu Tyr Ala Gly His Gln Ile Ser Arg Asp Tyr 120

Val Arg Ser Glu Leu Glu Phe Ala Tyr Glu Gly Pro Met Tyr Leu Glu 135

Pro Leu Ser Met Asn Arg Phe Thr Thr Ala Leu Ile Gly Gln Leu Val 150

Val Cys Thr Leu Cys Ser Cys Val Met Lys Thr Lys Gln Ile Trp Leu 165 170

Phe Ser Ala His Met Leu Pro Leu Leu Ala Arg Leu Cys Leu Val Pro 180 185 190

- Leu Glu Thr Ile Val Ile Ile Asn Lys Phe Ala Met Ile Phe Thr Gly
  195 200 205
- Leu Glu Val Leu Tyr Phe Leu Gly Ser Asn Leu Leu Val Pro Tyr Asn 210 215 220
- Leu Ala Lys Ser Ala Tyr Arg Glu Leu Val Gln Val Val Glu Val Tyr 225 230 235 240
- Gly Leu Leu Ala Leu Gly Met Ser Leu Trp Asn Gln Leu Val Val Pro 245 250 255
- Val Leu Phe Met Val Phe Trp Leu Val Leu Phe Ala Leu Gln Ile Tyr 260 265 270
- Ser Tyr Phe Ser Thr Arg Asp Gln Pro Ala Ser Arg Glu Arg Leu Leu 275 280 285
- Phe Leu Phe Leu Thr Ser Ile Ala Glu Cys Cys Ser Thr Pro Tyr Ser 290 295, 300
- Leu Leu Gly Leu Val Phe Thr Val Ser Phe Val Ala Leu Gly Val Leu 305 310 315 320
- Thr Leu Cys Lys Phe Tyr Leu Gln Gly Tyr Arg Ala Phe Met Asn Asp 325 330 335
- Pro Ala Met Asn Arg Gly Met Thr Glu Gly Val Thr Leu Leu Ile Leu 340 345 350
- Ala Val Gln Thr Gly Leu Ile Glu Leu Gln Val Val His Arg Ala Phe 355 360 365
- Leu Leu Ser Ile Ile Leu Phe Ile Val Val Ala Ser Ile Leu Gln Ser 370 380
- Met Leu Glu Ile Ala Asp Pro Ile Val Leu Ala Leu Gly Ala Ser Arg 385 390 395 400
- Asp Lys Ser Leu Trp Lys His Phe Arg Ala Val Ser Leu Cys Leu Phe 405 410 415

Leu Leu Val Phe Pro Ala Tyr Met Ala Tyr Met Ile Cys Gln Phe Phe 420 425 430

- His Met Asp Phe Trp Leu Leu Ile Ile Ile Ser Ser Ser Ile Leu Thr 435 440 445
- Ser Leu Gln Val Leu Gly Thr Leu Phe Ile Tyr Val Leu Phe Met Val 450 455 460
- Glu Glu Phe Arg Lys Glu Pro Val Glu Asn Met Asp Asp Val Ile Tyr 465 470 475 480
- Tyr Val Asn Gly Thr Tyr Arg Leu Leu Glu Phe Leu Val Ala Leu Cys 485 490 495
- Val Val Ala Tyr Gly Val Ser Glu Thr Ile Phe Gly Glu Trp Thr Val 500 505 510
- Met Gly Ser Met Ile Ile Phe Ile His Ser Tyr Tyr Asn Val Trp Leu 515 520 525
- Arg Ala Gln Leu Gly Trp Lys Ser Phe Leu Leu Arg Arg Asp Ala Val
- Asn Lys Ile Lys Ser Leu Pro Ile Ala Thr Lys Glu Gln Leu Glu Lys 545 550 555 560
- His Asn Asp Ile Cys Ala Ile Cys Tyr Gln Asp Met Lys Ser Ala Val 565 570 575
- Ile Thr Pro Cys Ser His Phe Phe His Ala Gly Cys Leu Lys Lys Trp 580 585 590
- Leu Tyr Val Gln Glu Thr Cys Pro Leu Cys His Cys His Leu Lys Asn 595 600 605
- Ser Ser Gln Leu Pro Gly Leu Gly Thr Glu Pro Val Leu Gln Pro His 610 620
- Ala Gly Ala Glu Gln Asn Val Met Phe Gln Glu Gly Thr Glu Pro Pro 625 630 635 640
- Gly Gln Glu His Thr Pro Gly Thr Arg Ile Gln Glu Gly Ser Arg Asp 645 650 655
- Asn Asn Glu Tyr Ile Ala Arg Arg Pro Asp Asn Gln Glu Gly Ala Phe

660 665 670

Asp Pro Lys Glu Tyr Pro His Ser Ala Lys Asp Glu Ala His Pro Val 675 680 685

Glu Ser Ala 690

<210> 2996 <211> 390 <212> PRT

<213> Homo sapiens

<400> 2996

Met Ala Ser Pro Ala Ile Gly Gln Arg Pro Tyr Pro Leu Leu Asp 5 10

Pro Glu Pro Pro Arg Tyr Leu Gln Ser Leu Ser Gly Pro Glu Leu Pro

Pro Pro Pro Pro Asp Arg Ser Ser Arg Leu Cys Val Pro Ala Pro Leu

Ser Thr Ala Pro Gly Ala Arg Glu Gly Arg Ser Ala Arg Arg Ala Ala

Arg Gly Asn Leu Glu Pro Pro Pro Arg Ala Ser Arg Pro Ala Arg Pro 70

Leu Arg Pro Gly Leu Gln Gln Arg Leu Arg Arg Arg Pro Gly Ala Pro

Arg Pro Arg Asp Val Arg Ser Ile Phe Glu Gln Pro Gln Asp Pro Arg 100

Val Pro Ala Glu Arg Gly Glu Gly His Cys Phe Ala Glu Leu Val Leu

Pro Gly Gly Pro Gly Trp Cys Asp Leu Cys Gly Arg Glu Val Leu Arg

Gln Ala Leu Arg Cys Thr Asn Cys Lys Phe Thr Cys His Pro Glu Cys 160

Arg Ser Leu Ile Gln Leu Asp Cys Ser Gln Gln Glu Gly Leu Ser Arg 170 175

Asp Arg Pro Ser Pro Glu Ser Thr Leu Thr Val Thr Phe Ser Gln Asn 180 185 190

Val Cys Lys Pro Val Glu Glu Thr Gln Arg Pro Pro Thr Leu Gln Glu 195 200 205

Ile Lys Gln Lys Ile Asp Ser Tyr Asn Thr Arg Glu Lys Asn Cys Leu 210 215 220

Gly Met Lys Leu Ser Glu Asp Gly Thr Tyr Thr Gly Phe Ile Lys Val 225 230 235 240

His Leu Lys Leu Arg Arg Pro Val Thr Val Pro Ala Gly Ile Arg Pro 245 250 255

Gln Ser Ile Tyr Asp Ala Ile Lys Glu Val Asn Leu Ala Ala Thr Thr 260 265 270

Asp Lys Arg Thr Ser Phe Tyr Leu Pro Leu Asp Ala Ile Lys Gln Leu 275 280 285

His Ile Ser Ser Thr Thr Thr Val Ser Glu Val Ile Gln Gly Leu Leu 290 295 300

Lys Lys Phe Met Val Val Asp Asn Pro Gln Lys Phe Ala Leu Phe Lys 305 310 315 320

Arg Ile His Lys Asp Gly Gln Val Leu Phe Gln Lys Leu Ser Ile Ala 325 330 335

Asp Arg Pro Leu Tyr Leu Arg Leu Leu Ala Gly Pro Asp Thr Glu Val 340 345 350

Leu Ser Phe Val Leu Lys Glu Asn Glu Thr Gly Glu Val Glu Trp Asp 355 360 365

Ala Phe Ser Ile Pro Glu Leu Gln Asn Phe Leu Ser Ser Trp Cys Ile 370 375 380

Gln Ile Tyr Leu Tyr Tyr 385 390

<210> 2997

<211> 297

<212> PRT

<213> Homo sapiens

<400> 2997

Met Thr Thr Pro Arg Asn Ser Val Asn Gly Thr Phe Pro Ala Glu Pro 1 5 10 15

Met Lys Gly Pro Ile Ala Met Gln Ser Gly Pro Lys Pro Leu Phe Arg 20 25 30

Arg Met Ser Ser Leu Val Gly Pro Thr Gln Ser Phe Phe Met Arg Glu 35 40 45

Ser Lys Thr Leu Gly Ala Val Gln Ile Met Asn Gly Leu Phe His Ile 50 55 60

Ala Leu Gly Gly Leu Leu Met Ile Pro Ala Gly Ile Tyr Ala Pro Ile 65 70 75 80

Cys Val Thr Val Trp Tyr Pro Leu Trp Gly Gly Ile Met Tyr Ile Ile 85 90 95

Ser Gly Ser Leu Leu Ala Ala Thr Glu Lys Asn Ser Arg Lys Cys Leu 100 105 110

Val Lys Gly Lys Met Ile Met Asn Ser Leu Ser Leu Phe Ala Ala Ile 115 120 125

Ser Gly Met Ile Leu Ser Ile Met Asp Ile Leu Asn Ile Lys Ile Ser 130 135 140

His Phe Leu Lys Met Glu Ser Leu Asn Phe Ile Arg Ala His Thr Pro 145 150 155 160

Tyr Ile Asn Ile Tyr Asn Cys Glu Pro Ala Asn Pro Ser Glu Lys Asn 165 170 175

Ser Pro Ser Thr Gln Tyr Cys Tyr Ser Ile Gln Ser Leu Phe Leu Gly
180 185 190

Ile Leu Ser Val Met Leu Ile Phe Ala Phe Phe Gln Glu Leu Val Ile 195 200 205

Ala Gly Ile Val Glu Asn Glu Trp Lys Arg Thr Cys Ser Arg Pro Lys 210 215 220

Ser Asn Ile Val Leu Ser Ala Glu Glu Lys Lys Glu Gln Thr Ile 225 230 235 240 Glu Ile Lys Glu Glu Val Val Gly Leu Thr Glu Thr Ser Ser Gln Pro 245 250 255

Lys Asn Glu Glu Asp Ile Glu Ile Ile Pro Ile Gln Glu Glu Glu Glu 260 265 270

Glu Glu Thr Glu Thr Asn Phe Pro Glu Pro Pro Gln Asp Gln Glu Ser 275 280 285

Ser Pro Ile Glu Asn Asp Ser Ser Pro 290 295

<210> 2998

<211> 261

<212> PRT

<213> Homo sapiens

<400> 2998

Met Ser Trp Lys Lys Ala Leu Arg Ile Pro Gly Gly Leu Arg Ala Ala 1 5 10 15

Thr Val Thr Leu Met Leu Ser Met Leu Ser Thr Pro Val Ala Glu Gly
20 25 30

Arg Asp Ser Pro Glu Asp Phe Val Tyr Gln Phe Lys Gly Met Cys Tyr 35 40 45

Phe Thr Asn Gly Thr Glu Arg Val Arg Leu Val Ser Arg Ser Ile Tyr 50 55 60

Asn Arg Glu Glu Ile Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg 65 70 75 80

Ala Val Thr Leu Leu Gly Leu Pro Ala Ala Glu Tyr Trp Asn Ser Gln 85 90 95

Lys Asp Ile Leu Glu Arg Lys Arg Ala Ala Val Asp Arg Val Cys Arg
100 105 110

His Asn Tyr Gln Leu Glu Leu Arg Thr Thr Leu Gln Arg Arg Val Glu 115 120 125

Pro Thr Val Thr Ile Ser Pro Ser Arg Thr Glu Ala Leu Asn His His 130 135 140

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Asn Leu Leu Val Cys Ser Val Thr Asp Phe Tyr Pro Ala Gln Ile Lys 150 155

Val Arg Trp Phe Arg Asn Asp Gln Glu Glu Thr Ala Gly Val Val Ser 165

Thr Pro Leu Ile Arg Asn Gly Asp Trp Thr Phe Gln Ile Leu Val Met 180 185

Leu Glu Met Thr Pro Gln Arg Gly Asp Val Tyr Thr Cys His Val Glu 195 200

His Pro Ser Leu Gln Ser Pro Ile Thr Val Glu Trp Arg Ala Gln Ser 210

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Ile Gly Gly Phe Val Leu 225 230

Gly Leu Ile Phe Leu Gly Leu Gly Leu Ile Ile His His Arg Ser Gln

Lys Gly Leu Leu His 260

<210> 2999 <211> 258

<212> PRT

<213> Homo sapiens

<400> 2999

Met Met Val Leu Gln Val Ser Ala Ala Pro Arg Thr Val Ala Leu Thr 5 10

Ala Leu Leu Met Val Leu Leu Thr Ser Val Val Gln Gly Arg Ala Thr 20 25 30

Pro Glu Asn Tyr Leu Phe Gln Gly Arg Gln Glu Cys Tyr Ala Phe Asn 35 40 45

Gly Thr Gln Arg Phe Leu Glu Arg Tyr Ile Tyr Asn Arg Glu Glu Phe 50 55

Ala Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu 70 75

Gly Arg Pro Ala Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu 85 95

Glu Lys Arg Ala Val Pro Asp Arg Met Cys Arg His Asn Tyr Glu Leu 100 105 110

Gly Gly Pro Met Thr Leu Gln Arg Arg Val Gln Pro Arg Val Asn Val

Ser Pro Ser Lys Lys Gly Pro Leu Gln His His Asn Leu Leu Val Cys 130 135 140

His Val Thr Asp Phe Tyr Pro Gly Ser Ile Gln Val Arg Trp Phe Leu 145 150 155 160

Asn Gly Gln Glu Glu Thr Ala Gly Val Val Ser Thr Asn Leu Ile Arg 165 170 175

Asn Gly Asp Trp Thr Phe Gln Ile Leu Val Met Leu Glu Met Thr Pro 180 185 190

Gln Gln Gly Asp Val Tyr Thr Cys Gln Val Glu His Thr Ser Leu Asp 195 200 205

Ser Pro Val Thr Val Glu Trp Lys Ala Gln Ser Asp Ser Ala Arg Ser 210 215 220

Lys Thr Leu Thr Gly Ala Gly Gly Phe Val Leu Gly Leu Ile Ile Cys 225 230 235 240

Gly Val Gly Ile Phe Met His Arg Arg Ser Lys Lys Val Gln Arg Gly 245 250 255

Ser Ala

<210> 3000

<211> 175

<212> PRT

<213> Homo sapiens

<400> 3000

Met Thr Asp Cys Glu Phe Gly Tyr Ile Tyr Arg Leu Ala Gln Asp Tyr 1 5 10 15

Leu Gln Cys Val Leu Gln Ile Pro Gln Pro Gly Ser Gly Pro Ser Lys
20 25 30

Thr Ser Arg Val Leu Gln Asn Val Ala Phe Ser Val Gln Lys Glu Val 35 40 45

- Glu Lys Asn Leu Lys Ser Cys Leu Asp Asn Val Asn Val Val Ser Val 50 55 60
- Asp Thr Ala Arg Thr Leu Phe Asn Gln Val Met Glu Lys Glu Phe Glu 65 70 75 80
- Asp Gly Ile Ile Asn Trp Gly Arg Ile Val Thr Ile Phe Ala Phe Glu 85 90 95
- Gly Ile Leu Ile Lys Lys Leu Leu Arg Gln Gln Ile Ala Pro Asp Val
- Asp Thr Tyr Lys Glu Ile Ser Tyr Phe Val Ala Glu Phe Ile Met Asn 115 120 125
- Asn Thr Gly Glu Trp Ile Arg Gln Asn Gly Gly Trp Glu Asn Gly Phe
  130 140
- Val Lys Lys Phe Glu Pro Lys Ser Gly Trp Met Thr Phe Leu Glu Val 145 150 155 160
- Thr Gly Lys Ile Cys Glu Met Leu Ser Leu Leu Lys Gln Tyr Cys 165 170 175

<210> 3001

<211> 825

<212> PRT

<213> Homo sapiens

<400> 3001

- Met Gly Trp Leu Cys Ser Gly Leu Leu Phe Pro Val Ser Cys Leu Val 1 5 10 15
- Leu Leu Gln Val Ala Ser Ser Gly Asn Met Lys Val Leu Gln Glu Pro
  20 25 30
- Thr Cys Val Ser Asp Tyr Met Ser Ile Ser Thr Cys Glu Trp Lys Met
  35 40 45
- Asn Gly Pro Thr Asn Cys Ser Thr Glu Leu Arg Leu Leu Tyr Gln Leu 50 55 60
- Val Phe Leu Leu Ser Glu Ala His Thr Cys Ile Pro Glu Asn Asn Gly 65 70 75 80

Gly Ala Gly Cys Val Cys His Leu Leu Met Asp Asp Val Val Ser Ala 85 90 95

- Asp Asn Tyr Thr Leu Asp Leu Trp Ala Gly Gln Gln Leu Leu Trp Lys
  100 105 110
- Gly Ser Phe Lys Pro Ser Glu His Val Lys Pro Arg Ala Pro Gly Asn 115 120 125
- Leu Thr Val His Thr Asn Val Ser Asp Thr Leu Leu Leu Thr Trp Ser 130 135 140
- Asn Pro Tyr Pro Pro Asp Asn Tyr Leu Tyr Asn His Leu Thr Tyr Ala 145 150 155 160
- Val Asn Ile Trp Ser Glu Asn Asp Pro Ala Asp Phe Arg Ile Tyr Asn 165 170 175
- Val Thr Tyr Leu Glu Pro Ser Leu Arg Ile Ala Ala Ser Thr Leu Lys 180 185 190
- Ser Gly Ile Ser Tyr Arg Ala Arg Val Arg Ala Trp Ala Gln Cys Tyr 195 200 205
- Asn Thr Thr Trp Ser Glu Trp Ser Pro Ser Thr Lys Trp His Asn Ser 210 215 220
- Tyr Arg Glu Pro Phe Glu Gln His Leu Leu Gly Val Ser Val Ser 225 230 235 240
- Cys Ile Val Ile Leu Ala Val Cys Leu Leu Cys Tyr Val Ser Ile Thr 245 250 255
- Lys Ile Lys Lys Glu Trp Trp Asp Gln Ile Pro Asn Pro Ala Arg Ser 260 265 270
- Arg Leu Val Ala Ile Ile Ile Gln Asp Ala Gln Gly Ser Gln Trp Glu 275 280 285
- Lys Arg Ser Arg Gly Gln Glu Pro Ala Lys Cys Pro His Trp Lys Asn 290 295 300
- Cys Leu Thr Lys Leu Leu Pro Cys Phe Leu Glu His Asn Met Lys Arg 305 310 315 320

Asp Glu Asp Pro His Lys Ala Ala Lys Glu Met Pro Phe Gln Gly Ser 335 330 325 Gly Lys Ser Ala Trp Cys Pro Val Glu Ile Ser Lys Thr Val Leu Trp 345 350 340 Pro Glu Ser Ile Ser Val Val Arg Cys Val Glu Leu Phe Glu Ala Pro 360 Val Glu Cys Glu Glu Glu Glu Glu Glu Glu Glu Lys Gly Ser Phe 370 380 Cys Ala Ser Pro Glu Ser Ser Arg Asp Phe Gln Glu Gly Arg Glu 395 400 390 385 Gly Ile Val Ala Arg Leu Thr Glu Ser Leu Phe Leu Asp Leu Leu Gly 405 Glu Glu Asn Gly Gly Phe Cys Gln Gln Asp Met Gly Glu Ser Cys Leu 420 Leu Pro Pro Ser Gly Ser Thr Ser Ala His Met Pro Trp Asp Glu Phe Pro Ser Ala Gly Pro Lys Glu Ala Pro Pro Trp Gly Lys Glu Gln Pro 455 Leu His Leu Glu Pro Ser Pro Pro Ala Ser Pro Thr Gln Ser Pro Asp 470 475 Asn Leu Thr Cys Thr Glu Thr Pro Leu Val Ile Ala Gly Asn Pro Ala 490 Tyr Arg Ser Phe Ser Asn Ser Leu Ser Gln Ser Pro Cys Pro Arg Glu 505 Leu Gly Pro Asp Pro Leu Leu Ala Arg His Leu Glu Glu Val Glu Pro Glu Met Pro Cys Val Pro Gln Leu Ser Glu Pro Thr Thr Val Pro Gln 535 Pro Glu Pro Glu Thr Trp Glu Gln Ile Leu Arg Arg Asn Val Leu Gln

550

555

His Gly Ala Ala Ala Pro Val Ser Ala Pro Thr Ser Gly Tyr Gln 565 570 575

- Glu Phe Val His Ala Val Glu Gln Gly Gly Thr Gln Ala Ser Ala Val 580 585 590
- Val Gly Leu Gly Pro Pro Gly Glu Ala Gly Tyr Lys Ala Phe Ser Ser 595 600 605
- Leu Leu Ala Ser Ser Ala Val Ser Pro Glu Lys Cys Gly Phe Gly Ala 610 620
- Ser Ser Gly Glu Glu Gly Tyr Lys Pro Phe Gln Asp Leu Ile Pro Gly 625 630 635 640
- Cys Pro Gly Asp Pro Ala Pro Val Pro Val Pro Leu Phe Thr Phe Gly 645 650 655
- Leu Asp Arg Glu Pro Pro Arg Ser Pro Gln Ser Ser His Leu Pro Ser 660 665 670
- Ser Ser Pro Glu His Leu Gly Leu Glu Pro Gly Glu Lys Val Glu Asp 675 680 685
- Met Pro Lys Pro Pro Leu Pro Gln Glu Gln Ala Thr Asp Pro Leu Val 690 695 700
- Asp Ser Leu Gly Ser Gly Ile Val Tyr Ser Ala Leu Thr Cys His Leu 705 710 715 720
- Cys Gly His Leu Lys Gln Cys His Gly Gln Glu Asp Gly Gln Thr
  725 730 735
- Pro Val Met Ala Ser Pro Cys Cys Gly Cys Cys Cys Gly Asp Arg Ser 740 745 750
- Ser Pro Pro Thr Thr Pro Leu Arg Ala Pro Asp Pro Ser Pro Gly Gly 755 760 765
- Val Pro Leu Glu Ala Ser Leu Cys Pro Ala Ser Leu Ala Pro Ser Gly
  770 775 780
- Ile Ser Glu Lys Ser Lys Ser Ser Ser Ser Phe His Pro Ala Pro Gly 785 790 795 800
- Asn Ala Gln Ser Ser Ser Gln Thr Pro Lys Ile Val Asn Phe Val Ser

815

805 810

Val Gly Pro Thr Tyr Met Arg Val Ser 820 825

<210> 3002

<211> 285

<212> PRT

<213> Homo sapiens

<400> 3002

Met Asp Asp Ser Thr Glu Arg Glu Gln Ser Arg Leu Thr Ser Cys Leu 1 5 10 15

Lys Lys Arg Glu Glu Met Lys Leu Lys Glu Cys Val Ser Ile Leu Pro 20 25 30

Arg Lys Glu Ser Pro Ser Val Arg Ser Ser Lys Asp Gly Lys Leu Leu 35 40 45

Ala Ala Thr Leu Leu Leu Ala Leu Leu Ser Cys Cys Leu Thr Val Val 50 55 60

Ser Phe Tyr Gln Val Ala Ala Leu Gln Gly Asp Leu Ala Ser Leu Arg 65 70 75 80

Ala Glu Leu Gln Gly His His Ala Glu Lys Leu Pro Ala Gly Ala Gly 85 90 95

Ala Pro Lys Ala Gly Leu Glu Glu Ala Pro Ala Val Thr Ala Gly Leu 100 105 110

Lys Ile Phe Glu Pro Pro Ala Pro Gly Glu Gly Asn Ser Ser Gln Asn 115 120 125

Ser Arg Asn Lys Arg Ala Val Gln Gly Pro Glu Glu Thr Val Thr Gln 130 135 140

Asp Cys Leu Gln Leu Ile Ala Asp Ser Glu Thr Pro Thr Ile Gln Lys
145 150 155 160

Gly Ser Tyr Thr Phe Val Pro Trp Leu Leu Ser Phe Lys Arg Gly Ser 165 170 175

Ala Leu Glu Lys Glu Asn Lys Ile Leu Val Lys Glu Thr Gly Tyr 180 185 190 Phe Phe Ile Tyr Gly Gln Val Leu Tyr Thr Asp Lys Thr Tyr Ala Met 195 200 205

Gly His Leu Ile Gln Arg Lys Lys Val His Val Phe Gly Asp Glu Leu 210 215 220

Ser Leu Val Thr Leu Phe Arg Cys Ile Gln Asn Met Pro Glu Thr Leu 225 230 235 240

Pro Asn Asn Ser Cys Tyr Ser Ala Gly Ile Ala Lys Leu Glu Glu Gly 245 250 255

Asp Glu Leu Gln Leu Ala Ile Pro Arg Glu Asn Ala Gln Ile Ser Leu 260 265 270

Asp Gly Asp Val Thr Phe Phe Gly Ala Leu Lys Leu Leu 275 280 285

<210> 3003

<211> 444

<212> PRT

<213> Homo sapiens

<400> 3003

Met Ala Val Thr Thr Arg Leu Thr Arg Leu His Glu Lys Ile Leu Gln

5 10 15

Asn His Phe Gly Gly Lys Arg Leu Ser Leu Leu Tyr Lys Gly Ser Val

His Gly Phe Arg Asn Gly Val Leu Leu Asp Arg Cys Cys Asn Gln Gly 35 40 45

Pro Thr Leu Thr Val Ile Tyr Ser Glu Asp His Ile Ile Gly Ala Tyr 50 55 60

Ala Glu Glu Ser Tyr Gln Glu Gly Lys Tyr Ala Ser Ile Ile Leu Phe 65 70 75 80

Ala Leu Gln Asp Thr Lys Ile Ser Glu Trp Lys Leu Gly Leu Cys Thr 85 90 95

Pro Glu Thr Leu Phe Cys Cys Asp Val Thr Lys Tyr Asn Ser Pro Thr 100 105 110

Asn Phe Gln Ile Asp Gly Arg Asn Arg Lys Val Ile Met Asp Leu Lys

115 120 125

Thr Met Glu Asn Leu Gly Leu Ala Gln Asn Cys Thr Ile Ser Ile Gln
130 135 140

Asp Tyr Glu Val Phe Arg Cys Glu Asp Ser Leu Asp Glu Arg Lys Ile 145 150 155 160

Lys Gly Val Ile Glu Leu Arg Lys Ser Leu Leu Ser Ala Leu Arg Thr
165 170 175

Tyr Glu Pro Tyr Gly Ser Leu Val Gln Gln Ile Arg Ile Leu Leu Leu 180 185 190

Gly Pro Ile Gly Ala Gly Lys Ser Ser Phe Phe Asn Ser Val Arg Ser 195 200 205

Val Phe Gln Gly His Val Thr His Gln Ala Leu Val Gly Thr Asn Thr 210 215 220

Thr Gly Ile Ser Glu Lys Tyr Arg Thr Tyr Ser Ile Arg Asp Gly Lys 235 230 240

Asp Gly Lys Tyr Leu Pro Phe Ile Leu Cys Asp Ser Leu Gly Leu Ser 245 250 255

Glu Lys Glu Gly Gly Leu Cys Arg Asp Asp Ile Phe Tyr Ile Leu Asn 260 265 270

Gly Asn Ile Arg Asp Arg Tyr Gln Phe Asn Pro Met Glu Ser Ile Lys 275 280 285

Leu Asn His His Asp Tyr Ile Asp Ser Pro Ser Leu Lys Asp Arg Ile
290 295 300

His Cys Val Ala Phe Val Phe Asp Ala Ser Ser Ile Gln Tyr Phe Ser 305 310 315 320

Ser Gln Met Ile Val Lys Ile Lys Arg Ile Arg Arg Glu Leu Val Asn 325 330 335

Ala Gly Val Val His Val Ala Leu Leu Thr His Val Asp Ser Met Asp 340 345 350

Leu Ile Thr Lys Gly Asp Leu Ile Glu Ile Glu Arg Cys Glu Pro Val 355 360 365

Arg Ser Lys Leu Glu Glu Val Gln Arg Lys Leu Gly Phe Ala Leu Ser 370 375 380

Asp Ile Ser Val Val Ser Asn Tyr Ser Ser Glu Trp Glu Leu Asp Pro 385 390 395 400

Val Lys Asp Val Leu Ile Leu Ser Ala Leu Arg Arg Met Leu Trp Ala
405 410 415

Ala Asp Asp Phe Leu Glu Asp Leu Pro Phe Glu Gln Ile Gly Asn Leu 420 425 430

Arg Glu Glu Ile Ile Asn Cys Ala Gln Gly Lys Lys
435
440

<210> 3004

<211> 432

<212> PRT

<213> Homo sapiens

<400> 3004

Met Gly Pro Ala Gly Ser Leu Leu Gly Ser Gly Gln Met Gln Ile Thr

5 10 15

Leu Trp Gly Ser Leu Ala Ala Val Ala Ile Phe Phe Val Ile Thr Phe 20 25 30

Leu Ile Phe Pro Cys Ser Ser Cys Asp Arg Glu Lys Lys Pro Arg Gln 35 40 45

His Ser Gly Asp His Glu Asn Leu Met Asn Val Pro Ser Asp Lys Glu 50 55 60

Met Phe Ser Arg Ser Val Thr Ser Leu Ala Thr Asp Ala Pro Ala Ser 65 70 75 80

Ser Glu Gln Asn Gly Ala Leu Thr Asn Gly Asp Ile Leu Ser Glu Asp 85 90 95

Ser Thr Leu Thr Cys Met Gln His Tyr Glu Glu Val Gln Thr Ser Ala 100 105 110

Ser Asp Leu Leu Asp Ser Gln Asp Ser Thr Gly Lys Pro Lys Cys His 115 120 125

Gln Ser Arg Glu Leu Pro Arg Ile Pro Pro Glu Ser Ala Val Asp Thr 130 135 140

- Met Leu Thr Ala Arg Ser Val Asp Gly Asp Gln Gly Leu Gly Met Glu 145 150 155 160
- Gly Pro Tyr Glu Val Leu Lys Asp Ser Ser Ser Gln Glu Asn Met Val 165 170 175
- Glu Asp Cys Leu Tyr Glu Thr Val Lys Glu Ile Lys Glu Val Ala Ala 180 185 190
- Ala Ala His Leu Glu Lys Gly His Ser Gly Lys Ala Lys Ser Thr Ser 195 200 205
- Ala Ser Lys Glu Leu Pro Gly Pro Gln Thr Glu Gly Lys Ala Glu Phe 210 225 220
- Ala Glu Tyr Ala Ser Val Asp Arg Asn Lys Lys Cys Arg Gln Ser Val 225 230 235 240
- Asn Val Glu Ser Ile Leu Gly Asn Ser Cys Asp Pro Glu Glu Glu Ala 245 250 255
- Pro Pro Pro Val Pro Val Lys Leu Leu Asp Glu Asn Glu Asn Leu Gln 260 265 270
- Glu Lys Glu Gly Gly Glu Ala Glu Glu Ser Ala Thr Asp Thr Thr Ser 275 280 285
- Glu Thr Asn Lys Arg Phe Ser Ser Leu Ser Tyr Lys Ser Arg Glu Glu 290 295 300
- Asp Pro Thr Leu Thr Glu Glu Glu Ile Ser Ala Met Tyr Ser Ser Val 305 310 315 320
- Asn Lys Pro Gly Gln Leu Val Asn Lys Ser Gly Gln Ser Leu Thr Val
- Pro Glu Ser Thr Tyr Thr Ser Ile Gln Gly Asp Pro Gln Arg Ser Pro 340 345 350
- Ser Ser Cys Asn Asp Leu Tyr Ala Thr Val Lys Asp Phe Glu Lys Thr 355 360 365
- Pro Asn Ser Thr Leu Pro Pro Ala Gly Arg Pro Ser Glu Glu Pro Glu

370 375 380

Pro Asp Tyr Glu Ala Ile Gln Thr Leu Asn Arg Glu Glu Glu Lys Ala 385 390 395 400

Thr Leu Gly Thr Asn Gly His His Gly Leu Val Pro Lys Glu Asn Asp
405 410 415

Tyr Glu Ser Ile Ser Asp Leu Gln Gln Gly Arg Asp Ile Thr Arg Leu 420 425 430

<210> 3005

<211> 501

<212> PRT

<213> Homo sapiens

<400> 3005

Met Ile Ile Ser His Phe Pro Lys Cys Val Ala Val Phe Ala Leu Leu 1 5 10 15

Ala Leu Ser Val Gly Ala Leu Asp Thr Phe Ile Ala Ala Val Tyr Glu 20 25 30

His Ala Val Tle Leu Pro Asn Arg Thr Glu Thr Pro Val Ser Lys Glu
35 40 45

Glu Ala Leu Leu Met Asn Lys Asn Ile Asp Val Leu Glu Lys Ala
- 50 55 60

Val Lys Leu Ala Ala Lys Gln Gly Ala His Ile Ile Val Thr Pro Glu 65 70 75 80

Asp Gly Ile Tyr Gly Trp Ile Phe Thr Arg Glu Ser Ile Tyr Pro Tyr 85 90 95

Leu Glu Asp Ile Pro Asp Pro Gly Val Asn Trp Ile Pro Cys Arg Asp 100 105 110

Pro Trp Arg Phe Gly Asn Thr Pro Val Gln Gln Arg Leu Ser Cys Leu 115 120 125

Ala Lys Asp Asn Ser Ile Tyr Val Val Ala Asn Ile Gly Asp Lys Lys 130 135 140

Pro Cys Asn Ala Ser Asp Ser Gln Cys Pro Pro Asp Gly Arg Tyr Gln 145 150 155 160

Tyr Asn Thr Asp Val Val Phe Asp Ser Gln Gly Lys Leu Leu Ala Arg 165 170 175

- Tyr His Lys Tyr Asn Leu Phe Ala Pro Glu Ile Gln Phe Asp Phe Pro 180 185 190
- Lys Asp Ser Glu Leu Val Thr Phe Asp Thr Pro Phe Gly Lys Phe Gly 195 200 205
- Ile Phe Thr Cys Phe Asp Ile Phe Ser His Asp Pro Ala Ala Val Val 210 215 220
- Val Asp Glu Val Ser Ile Asp Ser Ile Leu Tyr Pro Thr Ala Trp Tyr 225 230 235 240
- Asn Thr Leu Pro Leu Leu Ser Ala Val Pro Phe His Ser Ala Trp Ala 245 250 255
- Lys Ala Met Gly Val Asn Leu Leu Ala Ala Asn Thr His Asn Thr Ser 260 265 270
- Met His Met Thr Gly Ser Gly Ile Tyr Ala Pro Glu Ala Val Lys Val 275 280 285
- Tyr His Tyr Asp Met Glu Thr Glu Ser Gly Gln Leu Leu Leu Ser Glu 290 295 300
- Leu Lys Ser Arg Pro Arg Arg Glu Pro Thr Tyr Pro Ala Ala Val Asp 305 310 315 320
- Trp His Ala Tyr Ala Ser Ser Val Lys Pro Phe Ser Ser Glu Gln Ser 325 330 335
- Asp Phe Leu Gly Met Ile Tyr Phe Asp Glu Phe Thr Phe Thr Lys Leu 340 345 350
- Lys Arg Asn Thr Gly Asn Tyr Thr Ala Cys Gln Lys Asp Leu Cys Cys 355 360 365
- His Leu Thr Tyr Lys Met Ser Glu Lys Arg Thr Asp Glu Ile Tyr Ala 370 375 380
- Leu Gly Ala Phe Asp Gly Leu His Thr Val Glu Gly Gln Tyr Tyr Leu 385 390 395 400

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Gln Ile Cys Ala Leu Leu Lys Cys Gln Thr Thr Asp Leu Glu Thr Cys 405

Gly Glu Pro Val Gly Ser Ala Phe Thr Lys Phe Glu Asp Phe Ser Leu 425

Ser Gly Thr Phe Gly Thr Arg Tyr Val Phe Pro Gln Ile Ile Leu Ser

Gly Ser Gln Leu Ala Pro Glu Arg His Tyr Glu Ile Ser Arg Asp Gly

Arg Leu Arg Ser Arg Ser Gly Ala Pro Leu Pro Val Leu Val Met Ala

Leu Tyr Gly Arg Val Phe Glu Lys Asp Pro Pro Arg Leu Gly Gln Gly 490

Ser Gly Lys Phe Gln

<210> 3006 <211> 329 <212> PRT <213> Homo sapiens

<400> 3006

Met Trp Gly Leu Lys Val Leu Leu Leu Pro Val Val Ser Phe Ala Leu 5

Tyr Pro Glu Glu Ile Leu Asp Thr His Trp Glu Leu Trp Lys Lys Thr 20 25 3.0

His Arg Lys Gln Tyr Asn Asn Lys Val Asp Glu Ile Ser Arg Arg Leu 35 40

Ile Trp Glu Lys Asn Leu Lys Tyr Ile Ser Ile His Asn Leu Glu Ala 50 55

Ser Leu Gly Val His Thr Tyr Glu Leu Ala Met Asn His Leu Gly Asp 65 70 75

Met Thr Ser Glu Glu Val Val Gln Lys Met Thr Gly Leu Lys Val Pro 90

Leu Ser His Ser Arg Ser Asn Asp Thr Leu Tyr Ile Pro Glu Trp Glu 100 105

1434

Gly Arg Ala Pro Asp Ser Val Asp Tyr Arg Lys Lys Gly Tyr Val Thr 115 120 125

Pro Val Lys Asn Gln Gly Gln Cys Gly Ser Cys Trp Ala Phe Ser Ser 130 135 140

Val Gly Ala Leu Glu Gly Gln Leu Lys Lys Lys Thr Gly Lys Leu Leu 145 150 155 160

Asn Leu Ser Pro Gln Asn Leu Val Asp Cys Val Ser Glu Asn Asp Gly
165 170 175

Cys Gly Gly Gly Tyr Met Thr Asn Ala Phe Gln Tyr Val Gln Lys Asn 180 185 190

Arg Gly Ile Asp Ser Glu Asp Ala Tyr Pro Tyr Val Gly Gln Glu Glu 195 200 205

Ser Cys Met Tyr Asn Pro Thr Gly Lys Ala Ala Lys Cys Arg-Gly Tyr 210 215 220

Arg Glu Ile Pro Glu Gly Asn Glu Lys Ala Leu Lys Arg Ala Val Ala 225 230 235 240

Arg Val Gly Pro Val Ser Val Ala Ile Asp Ala Ser Leu Thr Ser Phe 245 250 255

Gln Phe Tyr Ser Lys Gly Val Tyr Tyr Asp Glu Ser Cys Asn Ser Asp 260 265 270

Asn Leu Asn His Ala Val Leu Ala Val Gly Tyr Gly Ile Gln Lys Gly
275 280 285

Asn Lys His Trp Ile Ile Lys Asn Ser Trp Gly Glu Asn Trp Gly Asn 290 295 300

Lys Gly Tyr Ile Leu Met Ala Arg Asn Lys Asn Asn Ala Cys Gly Ile 305 310 315 320

Ala Asn Leu Ala Ser Phe Pro Lys Met 325

<210> 3007

<211> 1170

<212> PRT

<213> Homo sapiens

<400> 3007

Met Lys Asp Ser Cys Ile Thr Val Met Ala Met Ala Leu Leu Ser Gly
1 10 15

Phe Phe Phe Phe Ala Pro Ala Ser Ser Tyr Asn Leu Asp Val Arg Gly 20 25 30

Ala Arg Ser Phe Ser Pro Pro Arg Ala Gly Arg His Phe Gly Tyr Arg 35 40 45

Val Leu Gln Val Gly Asn Gly Val Ile Val Gly Ala Pro Gly Glu Gly 50 55 60

Asn Ser Thr Gly Ser Leu Tyr Gln Cys Gln Ser Gly Thr Gly His Cys 65 70 75 80

Leu Pro Val Thr Leu Arg Gly Ser Asn Tyr Thr Ser Lys Tyr Leu Gly 85 90 95

Met Thr Leu Ala Thr Asp Pro Thr Asp Gly Ser Ile Leu Ala Cys Asp 100 105 110

Pro Gly Leu Ser Arg Thr Cys Asp Gln Asn Thr Tyr Leu Ser Gly Leu 115 120 125

Cys Tyr Leu Phe Arg Gln Asn Leu Gln Gly Pro Met Leu Gln Gly Arg 130 135 140

Pro Gly Phe Gln Glu Cys Ile Lys Gly Asn Val Asp Leu Val Phe Leu 145 150 155 160

Phe Asp Gly Ser Met Ser Leu Gln Pro Asp Glu Phe Gln Lys Ile Leu 165 170 175

Asp Phe Met Lys Asp Val Met Lys Lys Leu Ser Asn Thr Ser Tyr Gln 180 185 190

Phe Ala Ala Val Gln Phe Ser Thr Ser Tyr Lys Thr Glu Phe Asp Phe 195 200 205

Ser Asp Tyr Val Lys Trp Lys Asp Pro Asp Ala Leu Leu Lys His Val 210 215 220

Lys His Met Leu Leu Thr Asn Thr Phe Gly Ala Ile Asn Tyr Val

225

230

235

240

Ala Thr Glu Val Phe Arg Glu Glu Leu Gly Ala Arg Pro Asp Ala Thr 245 250 255

Lys Val Leu Ile Ile Ile Thr Asp Gly Glu Ala Thr Asp Ser Gly Asn 260 265 270

Ile Asp Ala Ala Lys Asp Ile Ile Arg Tyr Ile Ile Gly Ile Gly Lys
275
280
285

His Phe Gln Thr Lys Glu Ser Gln Glu Thr Leu His Lys Phe Ala Ser 290 295 300

Lys Pro Ala Ser Glu Phe Val Lys Ile Leu Asp Thr Phe Glu Lys Leu 305 310 315 320

Lys Asp Leu Phe Thr Glu Leu Gln Lys Lys Ile Tyr Val Ile Glu Gly 325 330 335

Thr Ser Lys Gln Asp Leu Thr Ser Phe Asn Met Glu Leu Ser Ser Ser 340 350

Gly Ile Ser Ala Asp Leu Ser Arg Gly His Ala Val Val Gly Ala Val 355 360 365

Gly Ala Lys Asp Trp Ala Gly Gly Phe Leu Asp Leu Lys Ala Asp Leu 370 380

Gln Asp Asp Thr Phe Ile Gly Asn Glu Pro Leu Thr Pro Glu Val Arg 385 390 395 400

Ala Gly Tyr Leu Gly Tyr Thr Val Thr Trp Leu Pro Ser Arg Gln Lys 405 410 415

Thr Ser Leu Leu Ala Ser Gly Ala Pro Arg Tyr Gln His Met Gly Arg
420 425 430

Val Leu Phe Gln Glu Pro Gln Gly Gly Gly His Trp Ser Gln Val
435 440 445

Gln Thr Ile His Gly Thr Gln Ile Gly Ser Tyr Phe Gly Gly Glu Leu 450 455 460

Cys Gly Val Asp Val Asp Gln Asp Gly Glu Thr Glu Leu Leu Ile 465 470 475 480

Gly Ala Pro Leu Phe Tyr Gly Glu Gln Arg Gly Gly Arg Val Phe Ile 485 490 495

- Tyr Gln Arg Arg Gln Leu Gly Phe Glu Glu Val Ser Glu Leu Gln Gly
  500 505 510
- Asp Pro Gly Tyr Pro Leu Gly Arg Phe Gly Glu Ala Ile Thr Ala Leu 515 520 525
- Thr Asp Ile Asn Gly Asp Gly Leu Val Asp Val Ala Val Gly Ala Pro 530 535 540
- Leu Glu Glu Gln Gly Ala Val Tyr Ile Phe Asn Gly Arg His Gly Gly 545 550 555 560
- Leu Ser Pro Gln Pro Ser Gln Arg Ile Glu Gly Thr Gln Val Leu Ser 565 570 575
- Gly Ile Gln Trp Phe Gly Arg Ser Ile His Gly Val Lys Asp Leu Glu 580 585 590
- Gly Asp Gly Leu Ala Asp Val Ala Val Gly Ala Glu Ser Gln Met Ile 595 600 605
- Val Leu Ser Ser Arg Pro Val Val Asp Met Val Thr Leu Met Ser Phe 610 615 620
- Ser Pro Ala Glu Ile Pro Val His Glu Val Glu Cys Ser Tyr Ser Thr 625 630 635 640
- Ser Asn Lys Met Lys Glu Gly Val Asn Ile Thr Ile Cys Phe Gln Ile 645 650 655
- Lys Ser Leu Tyr Pro Gln Phe Gln Gly Arg Leu Val Ala Asn Leu Thr 660 665 670
- Tyr Thr Leu Gln Leu Asp Gly His Arg Thr Arg Arg Arg Gly Leu Phe 675 680 685
- Pro Gly Gly Arg His Glu Leu Arg Arg Asn Ile Ala Val Thr Thr Ser 690 695 700
- Met Ser Cys Thr Asp Phe Ser Phe His Phe Pro Val Cys Val Gln Asp 705 710 715 720

Leu Ile Ser Pro Ile Asn Val Ser Leu Asn Phe Ser Leu Trp Glu Glu
725 730 735

- Glu Gly Thr Pro Arg Asp Gln Arg Ala Gln Gly Lys Asp Ile Pro Pro 740 745 750
- Ile Leu Arg Pro Ser Leu His Ser Glu Thr Trp Glu Ile Pro Phe Glu 755 760 765
- Lys Asn Cys Gly Glu Asp Lys Lys Cys Glu Ala Asn Leu Arg Val Ser 770 775 780
- Phe Ser Pro Ala Arg Ser Arg Ala Leu Arg Leu Thr Ala Phe Ala Ser 785 790 795 800
- Leu Ser Val Glu Leu Ser Leu Ser Asn Leu Glu Glu Asp Ala Tyr Trp 805 810 815
- Val Gln Leu Asp Leu His Phe Pro Pro Gly Leu Ser Phe Arg Lys Val 820 825 830
- Glu Met Leu Lys Pro His Ser Gln Ile Pro Val Ser Cys Glu Glu Leu 835 840 845
- Pro Glu Glu Ser Arg Leu Leu Ser Arg Ala Leu Ser Cys Asn Val Ser 850 855 860
- Ser Pro Ile Phe Lys Ala Gly His Ser Val Ala Leu Gln Met Met Phe 865. 870 875 880
- Asn Thr Leu Val Asn Ser Ser Trp Gly Asp Ser Val Glu Leu His Ala 885 890 895
- Asn Val Thr Cys Asn Asn Glu Asp Ser Asp Leu Leu Glu Asp Asn Ser 900 905 910
- Ala Thr Thr Ile Ile Pro Ile Leu Tyr Pro Ile Asn Ile Leu Ile Gln 915 920 925
- Asp Gln Glu Asp Ser Thr Leu Tyr Val Ser Phe Thr Pro Lys Gly Pro 930 935 940
- Lys Ile His Gln Val Lys His Met Tyr Gln Val Arg Ile Gln Pro Ser 945 950 955 960

Ile His Asp His Asn Ile Pro Thr Leu Glu Ala Val Val Gly Val Pro 965 970 975

- Gln Pro Pro Ser Glu Gly Pro Ile Thr His Gln Trp Ser Val Gln Met 980 985 990
- Glu Pro Pro Val Pro Cys His Tyr Glu Asp Leu Glu Arg Leu Pro Asp 995 1000 1005
- Ala Ala Glu Pro Cys Leu Pro Gly Ala Leu Phe Arg Cys Pro Val 1010 1015 1020
- Val Phe Arg Gln Glu Ile Leu Val Gln Val Ile Gly Thr Leu Glu 1025 1030 1035
- Leu Val Gly Glu Ile Glu Ala Ser Ser Met Phe Ser Leu Cys Ser 1040 1045 1050
- Ser Leu Ser Ile Ser Phe Asn Ser Ser Lys His Phe His Leu Tyr 1055 1060 1065
- Gly Ser Asn Ala Ser Leu Ala Gln Val Val Met Lys Val Asp Val 1070 1080
- Val Tyr Glu Lys Gln Met Leu Tyr Leu Tyr Val Leu Ser Gly Ile 1085 1090 1095
- Gly Gly Leu Leu Leu Leu Leu Leu Ile Phe Ile Val Leu Tyr Lys 1100 1105 1110
- Val Gly Phe Phe Lys Arg Asn Leu Lys Glu Lys Met Glu Ala Gly 1115 1120 1125
- Arg Gly Val Pro Asn Gly Ile Pro Ala Glu Asp Ser Glu Gln Leu 1130 1135 1140
- Ala Ser Gly Gln Glu Ala Gly Asp Pro Gly Cys Leu Lys Pro Leu 1145 1150 1155
- His Glu Lys Asp Ser Glu Ser Gly Gly Gly Lys Asp 1160 1165 1170
- <210> 3008
- <211> 502
- <212> PRT
- <213> Homo sapiens

<400> 3008

Met Ala Thr Asn Pro Gln Pro Gln Pro Pro Pro Pro Ala Pro Pro Pro 10 15

Pro Pro Pro Gln Pro Gln Pro Gln Pro Pro Pro Pro Pro Pro Gly Pro 20 25 30

Gly Ala Gly Pro Gly Ala Gly Gly Ala Gly Ala Gly Ala Gly Ala 35 40 45

Gly Asp Pro Gln Leu Val Ala Met Ile Val Asn His Leu Lys Ser Gln 50 55 60

Gly Leu Phe Asp Gln Phe Arg Arg Asp Cys Leu Ala Asp Val Asp Thr 65 70 75 80

Lys Pro Ala Tyr Gln Asn Leu Arg Gln Arg Val Asp Asn Phe Val Ala 85 90 95

Asn His Leu Ala Thr His Thr Trp Ser Pro His Leu Asn Lys Asn Gln
100 105 110

Leu Arg Asn Asn Ile Arg Gln Gln Val Leu Lys Ser Gly Met Leu Glu
115 120 125

Ser Gly Ile Asp Arg Ile Ile Ser Gln Val Val Asp Pro Lys Ile Asn 130 135 140

His Thr Phe Arg Pro Gln Val Glu Lys Ala Val His Glu Phe Leu Ala 145 150 155 160

Thr Leu Asn His Lys Glu Glu Gly Ser Gly Asn Thr Ala Pro Asp Asp 165 170 175

Glu Lys Pro Asp Thr Ser Leu Ile Thr Gln Gly Val Pro Thr Pro Gly
180 185 190

Pro Ser Ala Asn Val Ala Asn Asp Ala Met Ser Ile Leu Glu Thr Ile 195 200 205

Thr Ser Leu Asn Gln Glu Ala Ser Ala Ala Arg Ala Ser Thr Glu Thr 210 215 220

Ser Asn Ala Lys Thr Ser Glu Arg Ala Ser Lys Lys Leu Pro Ser Gln 225 230 235 240 Pro Thr Thr Asp Thr Ser Thr Asp Lys Glu Arg Thr Ser Glu Asp Met 245 250 255

- Ala Asp Lys Glu Lys Ser Thr Ala Asp Ser Gly Gly Glu Gly Leu Glu 260 265 270
- Thr Ala Pro Lys Ser Glu Glu Phe Ser Asp Leu Pro Cys Pro Val Glu 275 280 285
- Glu Ile Lys Asn Tyr Thr Lys Glu His Asn Asn Leu Ile Leu Leu Asn 290 295 300
- Lys Asp Val Gln Gln Glu Ser Ser Glu Gln Lys Asn Lys Ser Thr Asp 305 310 315 320
- Lys Gly Glu Lys Lys Pro Asp Ser Asn Glu Lys Gly Glu Arg Lys Lys 325 330 335
- Glu Lys Lys Glu Lys Thr Glu Lys Lys Phe Asp His Ser Lys Lys Ser 340 345 350
- Glu Asp Thr Gln Lys Val Lys Asp Glu Lys Gln Ala Lys Glu Lys Glu 355 360 365
- Val Glu Ser Leu Lys Leu Pro Ser Glu Lys Asn Ser Asn Lys Ala Lys 370 375 380
- Thr Val Glu Gly Thr Lys Glu Asp Phe Ser Leu Ile Asp Ser Asp Val 385 390 395 400
- Asp Gly Leu Thr Asp Ile Thr Val Ser Ser Val His Thr Ser Asp Leu 405 410 415
- Ser Ser Phe Glu Glu Asp Thr Glu Glu Glu Val Val Thr Ser Asp Ser 420 425 430
- Met Glu Glu Gly Glu Ile Thr Ser Asp Asp Glu Glu Lys Asn Lys Gln 435 440 445
- Asn Lys Thr Lys Thr Gln Thr Ser Asp Ser Ser Glu Gly Lys Thr Lys 450 455 460
- Ser Val Arg His Ala Tyr Val His Lys Pro Tyr Leu Tyr Ser Lys Tyr 465 470 475 480

Tyr Ser Asp Ser Asp Asp Glu Leu Thr Val Glu Gln Arg Arg Gln Ser 485 490 495

Ile Gly Ile Leu Trp Phe 500

<210> 3009

<211> 61

<212> PRT

<213> Homo sapiens

<400> 3009

Met Lys Arg Phe Leu Phe Leu Leu Leu Thr Ile Ser Leu Leu Val Met 1 5 10 15

Val Gln Ile Gln Thr Gly Leu Ser Gly Gln Asn Asp Thr Ser Gln Thr 20 25 30

Ser Ser Pro Ser Ala Ser Ser Ser Met Ser Gly Gly Ile Phe Leu Phe 35 40 45

Phe Val Ala Asn Ala Ile Ile His Leu Phe Cys Phe Ser 50 55 60

<210> 3010

<211> 352

<212> PRT

<213> Homo sapiens

<400> 3010

Met Glu Gly Ile Ser Ile Tyr Thr Ser Asp Asn Tyr Thr Glu Glu Met

1 10 15

Gly Ser Gly Asp Tyr Asp Ser Met Lys Glu Pro Cys Phe Arg Glu Glu 20 25 30

Asn Ala Asn Phe Asn Lys Ile Phe Leu Pro Thr Ile Tyr Ser Ile Ile 35 40 45

Phe Leu Thr Gly Ile Val Gly Asn Gly Leu Val Ile Leu Val Met Gly 50 55 60

Tyr Gln Lys Lys Leu Arg Ser Met Thr Asp Lys Tyr Arg Leu His Leu 65 70 75 80

Ser Val Ala Asp Leu Leu Phe Val Ile Thr Leu Pro Phe Trp Ala Val 85 90 95

Asp Ala Val Ala Asn Trp Tyr Phe Gly Asn Phe Leu Cys Lys Ala Val 105 110 100 His Val Ile Tyr Thr Val Asn Leu Tyr Ser Ser Val Leu Ile Leu Ala 115 120 Phe Ile Ser Leu Asp Arg Tyr Leu Ala Ile Val His Ala Thr Asn Ser 135 Gln Arg Pro Arg Lys Leu Leu Ala Glu Lys Val Val Tyr Val Gly Val 155 160 Trp Ile Pro Ala Leu Leu Thr Ile Pro Asp Phe Ile Phe Ala Asn 170 Val Ser Glu Ala Asp Asp Arg Tyr Ile Cys Asp Arg Phe Tyr Pro Asn Asp Leu Trp Val Val Val Phe Gln Phe Gln His Ile Met Val Gly Leu 195 200 Ile Leu Pro Gly Ile Val Ile Leu Ser Cys Tyr Cys Ile Ile Ser 215 Lys Leu Ser His Ser Lys Gly His Gln Lys Arg Lys Ala Leu Lys Thr 235 Thr Val Ile Leu Ile Leu Ala Phe Phe Ala Cys Trp Leu Pro Tyr Tyr Ile Gly Ile Ser Ile Asp Ser Phe Ile Leu Leu Glu Ile Ile Lys Gln 280

Gly Cys Glu Phe Glu Asn Thr Val His Lys Trp Ile Ser Ile Thr Glu

Ala Leu Ala Phe Phe His Cys Cys Leu Asn Pro Ile Leu Tyr Ala Phe 295

Leu Gly Ala Lys Phe Lys Thr Ser Ala Gln His Ala Leu Thr Ser Val 315 310

Ser Arg Gly Ser Ser Leu Lys Ile Leu Ser Lys Gly Lys Arg Gly Gly 330 325

His Ser Ser Val Ser Thr Glu Ser Glu Ser Ser Phe His Ser Ser 340 345 350

<210> 3011

<211> 94

<212> PRT

<213> Homo sapiens

<400> 3011

Met Ala Pro Leu Lys Met Leu Ala Leu Val Thr Leu Leu Cly Ala 1 5 10 15

Ser Leu Gln His Ile His Ala Ala Arg Gly Thr Asn Val Gly Arg Glu 20 25 , 30

Cys Cys Leu Glu Tyr Phe Lys Gly Ala Ile Pro Leu Arg Lys Leu Lys 35 40 45

Thr Trp Tyr Gln Thr Ser Glu Asp Cys Ser Arg Asp Ala Ile Val Phe 50 55 60

Val Thr Val Gln Gly Arg Ala Ile Cys Ser Asp Pro Asn Asn Lys Arg
65 70 75 80

Val Lys Asn Ala Val Lys Tyr Leu Gln Ser Leu Glu Arg Ser 85 90

<210> 3012

<211> 748

<212> PRT

<213> Homo sapiens

<400> 3012

Met Ser Gln Trp Asn Gln Val Gln Gln Leu Glu Ile Lys Phe Leu Glu 1 5 10 15

Gln Val Asp Gln Phe Tyr Asp Asp Asn Phe Pro Met Glu Ile Arg His 20 25 30

Leu Leu Ala Gln Trp Ile Glu Asn Gln Asp Trp Glu Ala Ala Ser Asn 35 40 45

Asn Glu Thr Met Ala Thr Ile Leu Leu Gln Asn Leu Leu Ile Gln Leu 50 55 60

Asp Glu Gln Leu Gly Arg Val Ser Lys Glu Lys Asn Leu Leu Leu Ile 65 70 75 80

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His Asn Leu Lys Arg Ile Arg Lys Val Leu Gln Gly Lys Phe His Gly 85 90 Asn Pro Met His Val Ala Val Ile Ser Asn Cys Leu Arg Glu Glu 105 110 Arg Arg Ile Leu Ala Ala Ala Asn Met Pro Val Gln Gly Pro Leu Glu 115 Lys Ser Leu Gln Ser Ser Ser Val Ser Glu Arg Gln Arg Asn Val Glu 135 130 His Lys Val Ala Ala Ile Lys Asn Ser Val Gln Met Thr Glu Gln Asp 150 Thr Lys Tyr Leu Glu Asp Leu Gln Asp Glu Phe Asp Tyr Arg Tyr Lys 175 165 170 Thr Ile Gln Thr Met Asp Gln Ser Asp Lys Asn Ser Ala Met Val Asn 185 Gln Glu Val Leu Thr Leu Gln Glu Met Leu Asn Ser Leu Asp Phe Lys 200 Arg Lys Glu Ala Leu Ser Lys Met Thr Gln Ile Ile His Glu Thr Asp Leu Leu Met Asn Thr Met Leu Ile Glu Glu Leu Gln Asp Trp Lys Arg 230 Arg Gln Gln Ile Ala Cys Ile Gly Gly Pro Leu His Asn Gly Leu Asp 245 250

Gln Leu Gln Asn Cys Phe Thr Leu Leu Ala Glu Ser Leu Phe Gln Leu 265 260

Arg Arg Gln Leu Glu Lys Leu Glu Glu Gln Ser Thr Lys Met Thr Tyr 280 285 275

Glu Gly Asp Pro Ile Pro Met Gln Arg Thr His Met Leu Glu Arg Val 295

Thr Phe Leu Ile Tyr Asn Leu Phe Lys Asn Ser Phe Val Val Glu Arg 310 315

Gln Pro Cys Met Pro Thr His Pro Gln Arg Pro Leu Val Leu Lys Thr 325 330 335

- Leu Ile Gln Phe Thr Val Lys Leu Arg Leu Leu Ile Lys Leu Pro Glu 340 345 350
- Leu Asn Tyr Gln Val Lys Val Lys Ala Ser Ile Asp Lys Asn Val Ser 355 360 365
- Thr Leu Ser Asn Arg Arg Phe Val Leu Cys Gly Thr Asn Val Lys Ala 370 375 380
- Met Ser Ile Glu Glu Ser Ser Asn Gly Ser Leu Ser Val Glu Phe Arg
- His Leu Gln Pro Lys Glu Met Lys Ser Ser Ala Gly Gly Lys Gly Asn 405 410 415
- Glu Gly Cys His Met Val Thr Glu Glu Leu His Ser Ile Thr Phe Glu 420 425 430
- Thr Gln Ile Cys Leu Tyr Gly Leu Thr Ile Asp Leu Glu Thr Ser Ser 435 440 445
- Leu Pro Val Val Met Ile Ser Asn Val Ser Gln Leu Pro Asn Ala Trp 450 455 460
- Ala Ser Ile Ile Trp Tyr Asn Val Ser Thr Asn Asp Ser Gln Asn Leu 465 470 475 480
- Val Phe Phe Asn Asn Pro Pro Pro Ala Thr Leu Ser Gln Leu Leu Glu
  485 490 495
- Val Met Ser Trp Gln Phe Ser Ser Tyr Val Gly Arg Gly Leu Asn Ser 500 505 510
- Asp Gln Leu His Met Leu Ala Glu Lys Leu Thr Val Gln Ser Ser Tyr 515 520 525
- Ser Asp Gly His Leu Thr Trp Ala Lys Phe Cys Lys Glu His Leu Pro 530 535 540
- Gly Lys Ser Phe Thr Phe Trp Thr Trp Leu Glu Ala Ile Leu Asp Leu 545 550 555 560
- Ile Lys Lys His Ile Leu Pro Leu Trp Ile Asp Gly Tyr Val Met Gly

565 570 575

Phe Val Ser Lys Glu Lys Glu Arg Leu Leu Leu Lys Asp Lys Met Pro 580 585 590

Gly Thr Phe Leu Leu Arg Phe Ser Glu Ser His Leu Gly Gly Ile Thr 595 600 605

Phe Thr Trp Val Asp His Ser Glu Ser Gly Glu Val Arg Phe His Ser 610 615 620

Val Glu Pro Tyr Asn Lys Gly Arg Leu Ser Ala Leu Pro Phe Ala Asp 625 630 635 640

Ile Leu Arg Asp Tyr Lys Val Ile Met Ala Glu Asn Ile Pro Glu Asn 645 650 655

Pro Leu Lys Tyr Leu Tyr Pro Asp Ile Pro Lys Asp Lys Ala Phe Gly 660 665 670

Lys His Tyr Ser Ser Gln Pro Cys Glu Val Ser Arg Pro Thr Glu Arg 675 680 685

Gly Asp Lys Gly Tyr Val Pro Ser Val Phe Ile Pro Ile Ser Thr Ile 690 695 700

Arg Ser Asp Ser Thr Glu Pro His Ser Pro Ser Asp Leu Leu Pro Met 705 710 715 720

Ser Pro Ser Val Tyr Ala Val Leu Arg Glu Asn Leu Ser Pro Thr Thr 725 730 735

Ile Glu Thr Ala Met Lys Ser Pro Tyr Ser Ala Glu 740 745

<210> 3013

<211> 92

<212> PRT

<213> Homo sapiens

<400> 3013

Met Lys Leu Cys Val Thr Val Leu Ser Leu Leu Met Leu Val Ala Ala 1 5 10 15

Phe Cys Ser Pro Ala Leu Ser Ala Pro Met Gly Ser Asp Pro Pro Thr 20 25 30

Ala Cys Cys Phe Ser Tyr Thr Ala Arg Lys Leu Pro Arg Asn Phe Val

Val Asp Tyr Tyr Glu Thr Ser Ser Leu Cys Ser Gln Pro Ala Val Val 50 55 60

Phe Gln Thr Lys Arg Ser Lys Gln Val Cys Ala Asp Pro Ser Glu Ser 65 70 75 80

Trp Val Gln Glu Tyr Val Tyr Asp Leu Glu Leu Asn 85 90

<210> 3014

<211> 444

<212> PRT

<213> Homo sapiens

<400> 3014

Met Val Ser Gln Ala Leu Arg Leu Leu Cys Leu Leu Leu Gly Leu Gln 1 5 10 15

Gly Cys Leu Ala Ala Val Phe Val Thr Gln Glu Glu Ala His Gly Val 20 25 30

Leu His Arg Arg Arg Arg Ala Asn Ala Phe Leu Glu Glu Leu Arg Pro 35 40 45

Gly Ser Leu Glu Arg Glu Cys Lys Glu Glu Gln Cys Ser Phe Glu Glu 50 55 60

Ala Arg Glu Ile Phe Lys Asp Ala Glu Arg Thr Lys Leu Phe Trp Ile
65 70 75 80

Ser Tyr Ser Asp Gly Asp Gln Cys Ala Ser Ser Pro Cys Gln Asn Gly 85 90 95

Gly Ser Cys Lys Asp Gln Leu Gln Ser Tyr Ile Cys Phe Cys Leu Pro 100 105 110

Ala Phe Glu Gly Arg Asn Cys Glu Thr His Lys Asp Asp Gln Leu Ile 115 120 125

Cys Val Asn Glu Asn Gly Gly Cys Glu Gln Tyr Cys Ser Asp His Thr 130 135 140

Gly Thr Lys Arg Ser Cys Arg Cys His Glu Gly Tyr Ser Leu Leu Ala

145 150 155 160

Asp Gly Val Ser Cys Thr Pro Thr Val Glu Tyr Pro Cys Gly Lys Ile 165 170 175

Pro Ile Leu Glu Lys Arg Asn Ala Ser Lys Pro Gln Gly Arg Ile Val 180 185 190

Gly Gly Lys Val Cys Pro Lys Gly Glu Cys Pro Trp Gln Val Leu Leu 195 200 205

Leu Val Asn Gly Ala Gln Leu Cys Gly Gly Thr Leu Ile Asn Thr Ile 210 215 220

Trp Val Val Ser Ala Ala His Cys Phe Asp Lys Ile Lys Asn Trp Arg 225 230 235 240

Asn Leu Ile Ala Val Leu Gly Glu His Asp Leu Ser Glu His Asp Gly 245 250 255

Asp Glu Gln Ser Arg Arg Val Ala Gln Val Ile Ile Pro Ser Thr Tyr 260 265 270

Val Pro Gly Thr Thr Asn His Asp Ile Ala Leu Leu Arg Leu His Gln 275 280 285

Pro Val Val Leu Thr Asp His Val Val Pro Leu Cys Leu Pro Glu Arg 290 295 300

Thr Phe Ser Glu Arg Thr Leu Ala Phe Val Arg Phe Ser Leu Val Ser 305 310 315 320

Gly Trp Gly Gln Leu Leu Asp Arg Gly Ala Thr Ala Leu Glu Leu Met 325 330 335

Val Leu Asn Val Pro Arg Leu Met Thr Gln Asp Cys Leu Gln Gln Ser 340 345 350

Arg Lys Val Gly Asp Ser Pro Asn Ile Thr Glu Tyr Met Phe Cys Ala 355 360 365

Gly Tyr Ser Asp Gly Ser Lys Asp Ser Cys Lys Gly Asp Ser Gly Gly 370 375 380

Pro His Ala Thr His Tyr Arg Gly Thr Trp Tyr Leu Thr Gly Ile Val 385 390 395 400

Ser Trp Gly Gln Gly Cys Ala Thr Val Gly His Phe Gly Val Tyr Thr 405 410 415

Arg Val Ser Gln Tyr Ile Glu Trp Leu Gln Lys Leu Met Arg Ser Glu
420 425 430

Pro Arg Pro Gly Val Leu Leu Arg Ala Pro Phe Pro 435

<210> 3015

<211> 769

<212> PRT

<213> Homo sapiens

<400> 3015

Met Leu Gly Leu Arg Pro Pro Leu Leu Ala Leu Val Gly Leu Leu Ser 1 5 10 15

Leu Gly Cys Val Leu Ser Gln Glu Cys Thr Lys Phe Lys Val Ser Ser 20 25 30

Cys Arg Glu Cys Ile Glu Ser Gly Pro Gly Cys Thr Trp Cys Gln Lys 35 40 45

Leu Asn Phe Thr Gly Pro Gly Asp Pro Asp Ser Ile Arg Cys Asp Thr 50 55 60

Arg Pro Gln Leu Leu Met Arg Gly Cys Ala Ala Asp Asp Ile Met Asp 65 70 75 80

Pro Thr Ser Leu Ala Glu Thr Gln Glu Asp His Asn Gly Gln Lys 85 90 95

Gln Leu Ser Pro Gln Lys Val Thr Leu Tyr Leu Arg Pro Gly Gln Ala 100 105 110

Ala Ala Phe Asn Val Thr Phe Arg Arg Ala Lys Gly Tyr Pro Ile Asp 115 120 125

Leu Tyr Tyr Leu Met Asp Leu Ser Tyr Ser Met Leu Asp Asp Leu Arg 130 135 140

Asn Val Lys Lys Leu Gly Gly Asp Leu Leu Arg Ala Leu Asn Glu Ile 145 150 155 160

Thr Glu Ser Gly Arg Ile Gly Phe Gly Ser Phe Val Asp Lys Thr Val

- Leu Pro Phe Val Asn Thr His Pro Asp Lys Leu Arg Asn Pro Cys Pro 180 185 190
- Asn Lys Glu Lys Glu Cys Gln Pro Pro Phe Ala Phe Arg His Val Leu 195 200 205
- Lys Leu Thr Asn Asn Ser Asn Gln Phe Gln Thr Glu Val Gly Lys Gln 210 215 220
- Leu Ile Ser Gly Asn Leu Asp Ala Pro Glu Gly Gly Leu Asp Ala Met 225 230 235 240
- Met Gln Val Ala Cys Pro Glu Glu Ile Gly Trp Arg Asn Val Thr 245 250 255
- Arg Leu Leu Val Phe Ala Thr Asp Asp Gly Phe His Phe Ala Gly Asp 260 265 270
- Gly Lys Leu Gly Ala Ile Leu Thr Pro Asn Asp Gly Arg Cys His Leu 275 280 285
- Glu Asp Asn Leu Tyr Lys Arg Ser Asn Glu Phe Asp Tyr Pro Ser Val 290 295 300
- Gly Gln Leu Ala His Lys Leu Ala Glu Asn Asn Ile Gln Pro Ile Phe 305 310 315 320
- Ala Val Thr Ser Arg Met Val Lys Thr Tyr Glu Lys Leu Thr Glu Ile 325 330 335
- Ile Pro Lys Ser Ala Val Gly Glu Leu Ser Glu Asp Ser Ser Asn Val 340 345 350
- Val His Leu Ile Lys Asn Ala Tyr Asn Lys Leu Ser Ser Arg Val Phe 355 360 365
- Leu Asp His Asn Ala Leu Pro Asp Thr Leu Lys Val Thr Tyr Asp Ser 370 375 380
- Phe Cys Ser Asn Gly Val Thr His Arg Asn Gln Pro Arg Gly Asp Cys 385 390 395 400
- Asp Gly Val Gln Ile Asn Val Pro Ile Thr Phe Gln Val Lys Val Thr

405 410 415

Ala Thr Glu Cys Ile Gln Glu Gln Ser Phe Val Ile Arg Ala Leu Gly 420 425 430

Phe Thr Asp Ile Val Thr Val Gln Val Leu Pro Gln Cys Glu Cys Arg
435 440 445

Cys Arg Asp Gln Ser Arg Asp Arg Ser Leu Cys His Gly Lys Gly Phe 450 455 460

Leu Glu Cys Gly Ile Cys Arg Cys Asp Thr Gly Tyr Ile Gly Lys Asn 465 470 475 480

Cys Glu Cys Gln Thr Gln Gly Arg Ser Ser Gln Glu Leu Glu Gly Ser 485 490 495

Cys Arg Lys Asp Asn Asn Ser Ile Ile Cys Ser Gly Leu Gly Asp Cys 500 505 510

Val Cys Gly Gln Cys Leu Cys His Thr Ser Asp Val Pro Gly Lys Leu 515 520 525

Ile Tyr Gly Gln Tyr Cys Glu Cys Asp Thr Ile Asn Cys Glu Arg Tyr 530 540

Asn Gly Gln Val Cys Gly Gly Pro Gly Arg Gly Leu Cys Phe Cys Gly 545 550 555 560

Lys Cys Arg Cys His Pro Gly Phe Glu Gly Ser Ala Cys Gln Cys Glu 565 570 575

Arg Thr Thr Glu Gly Cys Leu Asn Pro Arg Arg Val Glu Cys Ser Gly 580 585 590

Arg Gly Arg Cys Arg Cys Asn Val Cys Glu Cys His Ser Gly Tyr Gln
595 600 605

Leu Pro Leu Cys Gln Glu Cys Pro Gly Cys Pro Ser Pro Cys Gly Lys 610 615 620

Tyr Ile Ser Cys Ala Glu Cys Leu Lys Phe Glu Lys Gly Pro Phe Gly 625 630 635 640

Lys Asn Cys Ser Ala Ala Cys Pro Gly Leu Gln Leu Ser Asn Asn Pro 645 650 655

Val	Lys	Gly	Arg 660	Thr	Cys	Lys	Glu	Arg 665	Asp	Ser	Glu	Gly	Cys 670	Trp	Val	
Ala	Tyr	Thr 675	Leu	Glu	Gln	Gln	Asp 680	Gly	Met	Asp	Arg	Tyr 685	Leu	Ile	туг	
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